THE CULTIVATOR.

THIRD] TO IMPROVE THE SOIL AND THE MIND. [SERIES.

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TERMS—FIFTY CENTS A YEAR.—Ten copies of the CULTIVATOR and Ten of the ANNUAL REGISTER OF RURAL AFFAIRS, with one of each free to the Agent, Five Dollars.

[For the Country Gentleman and Cultivator.]

Agricultural Notes in Monroe Co., N. Y.—No. III.

The Way to Commence Farming.

"Come, see a farmer at his home,
When garden, field and tree
Conspire with flowing stores to fill
His barns and granary." —MRS. SIGOURNEY.

In a previous communication I recorded the system of farm management adopted by Mr. I. Bower, as affording a very illustrious example for young farmers—and some old ones also—to copy; and in the present communication I propose to pen the system of management which is adopted by Mr. ANDREW CAMPBELL, a distant neighbor, as affording a good example of what Mr. B.'s system will be when successfully carried out.

I deem it not improper here to record my obligations to Mr. Albert Davis, a very intelligent young man, who, learning that your correspondent of the CO. GENT. and CULTIVATOR, which he reads, was in town, came where I was and kindly offered to take me in his carriage to see the country and some of the fine farms, stock, and other objects of interest. A pleasant ride of a few miles, where we passed many very nice farms apparently well cultivated, and nearly as many more good ones, but very badly cultivated, we arrived at the

Farm of Mr. Andrew Campbell,

which affords a very illustrious example of what a young man is capable of accomplishing by good economy and well directed industry. I found Mr. C. to be a very intelligent, practical and energetic farmer, and who possesses far more scientific knowledge than we are accustomed to find in those farmers who can take hold of farm tools or implements and show others how to handle them. Here we have an example not only of *paying* farming, but of *progressive* farming, a system of management which has supported the family, defrayed all the expenses of the farm, and at the same time has produced enough to pay a fair price for it, without having resource to some other revenue.

Mr. Campbell's farm contains about 200 acres, with some 30 or 40 acres of woodland, and on it is found a great variety of soil, from sandy loam, clayey loam to a stiff clay. Mr. C. commenced his career with only about eight hundred dollars—not enough to defray the expense of a good beginning—and has since erected very neat and commodious buildings, and has *paid* for everything with the revenue of his farm. His beautiful door-yard and numerous ornamental trees and shrubs assure us that he has a taste for the beautiful, as well as for those that are of great practical utility.

He has drained with tile to some extent, and appreciates the importance of underdraining. But as it is not practicable for a farmer under such circumstances to perfect all his plans in one season, nor in ten, we shall notice only those items of interest which he has succeeded in bringing to a good degree of perfectibility.

Barns and Stables.

His carriage and horse barn is about 40 feet square, with 18 feet posts, neatly painted with white lead and oil, colored with Indian red, which gives a very delicate and beautiful color. On one side is a close carriage room, which can be closed with blinds, and made dark and neat as a band-box, for nice carriages. On the opposite side is a row of very convenient horse stalls, with spacious mangers for receiving cut feed in front of the horses. The hay rack is made by having rounds in a vertical position, so that no dust or hay seed can fall on the heads of the horses. Hay is put into the racks from the hay loft above. In case a horse pulls out hay faster than he will eat it, his manger will receive it, and nothing will be lost or wasted. Beneath the stalls is an open shed or stercorary, and beneath one part of it an open shed, where tools and implements are housed. A large door from the open shed admits us into a spacious store room, where roots, pumpkins or apples are kept for feeding stock, which, if I recollect right, are put in through a trap door from above. A flight of stairs leads us up into the feed room, where there is a large box or bin, a box for mixing feed, and a pump for drawing water from a spacious cistern. Draw a slide in the end of a large spout above your head, and cut straw and hay will rush down into the feed box *ad libitum*. The building stands on a substantial stone wall—rat proof—and in the northwest corner is his spacious and

Improved Fruit Cellar,

Which is entered through the store-room just mentioned. A neat cellar, with water-lime bottom was first made; and then it was ceiled up neatly and tight, on every side, above and beneath also; and a space of about six inches was left on the sides and beneath, between the ceiling and the stone wall and water-lime bottom, so that the air could circulate freely all round it. Between the ceiling over head, and the carriage floor, the space is filled with grouting or lime mortar. The windows to the cellar are double, i. e., there is one window in the wall, and one window in the ceiling; and either of them can be opened at pleasure, or the inside window can be closed, and the outside one opened; and thus, a current of fresh air can

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pass entirely round between the walls. The entrance, also, is secured by a door neatly fitted on both sides of the jamb casings. The fruit is placed in shallow bins, one above the other, on each side of the cellar. By this arrangement, all dampness is excluded, and fruit will keep much longer and better than in an ordinary cellar.

The Grain Barn

Stands but a few feet distant from the horse barn, and is 82 feet long and 30 feet wide, with a leanto 16 by 42, all neatly painted a straw color, finished with a heavy box cornice, and doors on rollers at the top, with a good number of windows and green blinds, all resting on substantial stone wall, with a basement for cattle stalls, and *sub-base* for manure. There are, particularly, a good number of glass windows in the walls of the stables, so that the lower sash can be raised and the upper one lowered, to admit of good ventilation. In this respect, I have never met with anything that fully equals this arrangement for ventilation.

His cattle are secured by stanchions, standing on nearly or quite a level floor; and the manger, instead of being one continuous box or trough—as they are usually made—is divided into apartments for each animal, so that one cannot rob another, which is a decided improvement in this style of mangers. In front of every system of mangers is a spacious feed room, and in one end is a pump, where water can be obtained from a large cistern, which receives the water from the roofs of the barns, and overhead there are trap-doors, through which hay or straw may be pitched from the story above; and on one side is a large meal box—rat and mouse proof—which is filled by pouring the meal into a kind of side-door on the upper floor. Another apartment is fitted up for roots, which are let down from above, by driving a load into the barn, when a trap door is opened, and a large load disposed of in a few minutes. Then a door opens into a rat and mouse proof granary, of large dimensions; and between the ceiling on all sides, the space is grouted with lime mortar.

On one of the floors above is one of Emery Brothers' two-horse Railway powers, which drives a very large cylindrical straw and corn-stalk cutter, with which he cuts straw, corn stalks and hay for all of his stock; and there is a huge heap of cut straw, which was not fed out last spring. He cuts up all his straw, except what little is used for bedding; and he not only grinds all of his own coarse grain, but purchases more or less almost every season.

Making and Applying Manure.

Mr. C.'s mode of saving, making, and of applying manure, comes the nearest to a perfect system of any management that I have met with in that county. Such immense piles of the *choicest* quality as he had heaped up, I have never seen. The *liquid* portions had not been allowed to escape—as is the almost universal practice—but they are all retained among the solid portions; and the entire mass is full of the very best grain-producing material. His manure was being hauled out for a top-dressing, on his winter wheat, which he spreads very evenly and thin, after the last plowing, and harrows it well, and then drills in his wheat, and sows timothy in the fall, and early clover the following spring. As we walked across his wheat stubble, on our way to see Mr. C., for he is a working farmer—I observed to my friend Davis, that here we see the immediate effect of good cultivation, and of the application of good manure; and although I had seen nor heard nothing of his feeding, nor of his management of manure, I suggested that, judging from his grass alone, to say nothing of his fine pastures, Mr. C. keeps good stock, and feeds out a great deal of coarse grain, and does not allow his manure to run to waste. Most of his manure was sheltered from the weather; and I perceived that he did not neglect to manure those fields most distant from the barn, as his team was hauling top-dressing to a field about a mile—a practice which most farmers avoid far more than they adopt.

While most people excavate a large hole in the earth, and have an expensive stone vault built for the reception of the contents of the privy, where the entire concern is almost a nuisance, Mr. C.'s is furnished with a large water tight drawer, which is drawn out at pleasure and emptied on the soil or in the compost heap. He makes free use of ashes and fresh lime for deodorizers, and the premises appeared as sweet as a dining-room, although it was attached to the remote corner of the wood-house. This is a very convenient and economical arrangement.

Stock of Neat Cattle.

Besides milk cows and small cattle, Mr. C. has about twenty good bullocks, which are from three to five years old, which he is preparing for the shambles, which are grade Durhams, although some of them showed but little besides the native breed. He feeds very little hay during the foddering season, and taking into the account the very economical manner in which they were kept during winter, they were in fine condition; and I cannot forbear to record the marked superiority of those bullocks that possessed more of the Durham over those that did not inherit the characteristics of that breed. They were all good beef, but where the most Durham appeared, *the handling points* were very superior.

Mr. C. has a large platform hay-scales in his yard, where he weighs all his bullocks—usually about the first of each month—and is able to refer at any time to the previous weight of any bullock at any previous or present time. His bullocks are all numbered respectively from one to twenty; No. one, on any page, always refers to a certain bullock, and so with all the other numbers. I did not inquire by what means he is able to tell which bullock is represented by a given number; but I suppose he tells by the looks of them—by the particular form and color of each animal—which one is number five, or which one number twenty.

His object in weighing them, is to know not only how many pounds each animal has gained or has lost during a given period of time, and how much they have gained in the aggregate, and how much it costs to keep them one month or six months, and about how much a bullock is really worth by the pound—which is the true way to sell fat bullocks.

The time when each bullock was weighed, has been, uniformly, twelve hours after they had eaten any food, and after they had been allowed to drink. By this means he is able to approximate, as nearly as is practicable, to the true weight of each animal.

The practice of having access to a correct scales for weighing bullocks, cannot be recommended too strongly; and I am well satisfied that very many lose quite enough annually, where they sell their bullocks, in *under estimating* their real weight, to pay for a set that will weigh tairty hundred pounds.

Mr. C. feeds the least hay per head during the foddering season, of any man that I have ever met with. I think he told me that his cattle received no hay at all until nearly April, when he commenced feeding them hay once daily. The good condition of his animals showed very conclusively, that there is more nourishment in good straw than most farmers are accustomed to suppose, judging from the manner in which they allow it to go to waste.

Mr. C. kindly allowed me to have access to his book, from which I copied extensive figures; but as I do not think most proper to give them here, for want of space, I will simply give the aggregate weight of the twenty bullocks, during the most unfavorable part of the year for gaining in weight of either bone, muscle, or fat.

On Dec. 28th, the aggregate number of pounds of the twenty head was 27,597, which would give an average weight of about 1,379. On the 12th of the succeeding March the aggregate weight was 29,926 pounds. The aggregate gain in weight was 2,329 pounds, during about two and a half months, and at a season of the year too when we seldom expect but very little, if any gain, in animals that are not being fitted for immediate use for the shambles. The average gain was about 116 lbs., or about one pound and nine ounces each daily. This tells a good story for feeding on straw, and two quarts per day of meal made of coarse grain.

Although Mr. C.'s bullocks were in good condition, still

we could not repress the conviction, that if he had expended one or two hundred dollars a few years ago, in securing the services of such bulls as I saw at his neighbors, Messrs. Fellows and Isaac Bower, the money would have been well expended. Without any disparagement to other improved breeds of neat cattle, after making observations in this respect for many years, I am well satisfied, that those farmers who cross their native cows, or Devon cows with Durham bulls, are always sure of a very great improvement not only in *size* of their animals, but in all of those good points which constitute a good animal.

Mr. C. endeavors to do as much at under-draining with tile, every year, as is practicable, and appreciates the importance of under-draining, and is satisfied that it pays well to drain both high and low land, where Nature has not made ample provision for conducting away rapidly all the surplus water which falls on the soil.

Mr. C. fattens more or less pork annually, feeding out large quantities of peas and Indian corn, which makes a good supply of manure, and from which he realizes more per bushel than he could obtain at the market. He raises turnips for his neat cattle, and had about two acres then growing; and sows some corn broadcast for fodder. He raises a great many peas, and drills in his winter wheat after plowing the pea ground, and gives a top-dressing of his rich, barn-yard compost, which keeps the wheat from winter killing, and insures a good crop, not only of straw, but of grain, besides making sure thing of securing a good catch, when the soil is stocked down.

He is experimenting some in trying to make a hedge with the Osage Orange; but the sprouts have died every winter, so far down, that the progress in hedge making is quite slow. Every thing speaks of thrift and good management, and the bountiful dinner-table—delicious pears for a dessert—the neatness and palatability of everything, the good melodeon music, not only spoke well for a kind sister, but assured us that Mr. C's. good success could not be attributed to withholding a good supply of substantial food for himself and laborers. S. Edwards Todd.

EDITORIAL CORRESPONDENCE.

Fruit Culture in Indiana.

Richmond, 10 mo. (Oct.) 7, 1861.

During the few days I have been spending at this place, I have availed myself of occasional opportunities to visit some objects of horticultural interest in the neighborhood. This morning, in company with Dr. Warder, and J. C. and E. Y. Teas, I called at the rural residence of Benjamin Strattan, one of the merchants of this city, which we reached by a pleasant ride of two miles through a fine portion of the country over the national road. Unlike many country residents, who first cut down the growth of native trees, and then re-plant the same ground, the proprietor of this place selected and thinned out a portion of the forest, and built his house upon the site. The trees have not at once the round, full and low heads of park trees, given to such by having plenty of light and space to develop themselves, but in the present instance some of the bare trunks have been handsomely clothed with the native trumpet-creeper, prairie roses, and honeysuckles. The soil is a fine rich loam, resting on a subsoil that will hold water in post-holes. A small vineyard (for family consumption) was planted on this soil; the vines grew well for some years, but produced no fruit. It was then ridged with the plow, throwing the earth up towards the vines, and leaving a broad open drain between the rows, which effected good drainage, the land having some slope. It immediately began to bear, and now, the third year, the crop is a most profuse one. The vines, which are nearly all Catawba, are twelve feet apart in the rows, and twenty feet apart on the trellis, which is made of wire, and on which they meet, and cover the whole surface. Some have been planted but eight feet apart, but the greater distance is preferred. This mode appears to be much better than the thickly planted single canes of the Cincinnati method. The crop presents a luxuriant appearance; the clusters are large, dense, and ripened to a handsome purple. They are raised on spurs, and cover them so closely as to present the appearance of large single clusters, some nearly a foot in length and half a foot broad, and the fact that they were of more than one cluster could be determined only by examining the stem on which they grew.

One of the many new varieties of the Isabella, an accidental seedling, grows on another part of the grounds, and it may prove one of much value. It is now six years old; it forms two arms, each about an inch and a half in diameter, and extending over thirty feet on each side. B. Strattan thinks it fully two weeks earlier than the Isabella, judging from the fruit growing side by side; but a part of this difference may be owing to the greater vigor of the young vine. In flavor, the new sort, if not superior to the Isabella, appears to be fully equal to it in every respect. It is certainly worthy of further attention. I understand that E. Y. Teas of this place, has a small supply of plants for his correspondents.

A fine peach orchard had borne a good crop the present season, but all had disappeared except the Heath Cling, the trees of which were bending under the heavy crops of the large, rose-tinted specimens.

A half mile from this place is the fine market peach orchard of George Cole. It consists of a thousand trees, covers ten acres, and has grown six years. Although the trees are twenty feet apart, the branches have already met between the rows in many instances, and are not devoid of foliage in the centre, but green and thrifty throughout. The ground is well cultivated. It is the best peach orchard of its size and age I have anywhere seen. The peach crop is very uncertain at best through this region, and this is the first crop. Two thousand one hundred bushels have already been sold, at two to three dollars per bushel, and there are some fifty bushels of the Heath clingstone yet to market. The product must consequently be some five thousand dollars or more—nearly enough to pay for the whole hundred acre farm. Oldmixon free has proved the most profitable variety, both on account of its beauty and its productiveness—although in quality not quite equal to some others. Next to this is Walter's Early,—a great bearer; and Serrate Early York, for its earliness. Next in value are Oldmixon cling and Heath cling. I found the trees bending under their loads of the latter, and the owner selected for me a basket of the fruit, the specimens of which measured each about three inches in diameter. Crawford's Early proves of little value in this region on account of its deficient bearing. Peach trees are easily raised; the young trees may be bought this year for a ten acre orchard like this, for forty or fifty dollars. Yet possibly they might not bear in many years so good a crop as this; and even then it might not bring these prices. In other words, the business would partake somewhat the character of a lottery—the cost being a few hundred dollars in all; and the highest prize five or six thousand dollars as in the present case.

This portion of the state, as elsewhere, has plenty of Osage hedges, but there is scarcely a really good one among the whole, owing to the simple fact that none are properly managed, and very few at all cultivated when

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young. Some are irregular and full of gaps, and others are too thin beneath, and are becoming yearly more so, in consequence of deficient cutting back. Dr. Warder thlnks that a benefit will be gained by placing the plants more remote from each other than is usually done, that each may become more perfectly developed than could possibly be the case when the roots are crowded. The same opinion was expressed by Ex-Gov. THROOP, who has at his residence near Auburn, N. Y., one of the finest young buckthorn hedges I have any where met with, four feet wide at bottom, three feet high at top, where it is a narrow ridge, the plants being set about eighteen inches apart in the row—the whole thoroughly cultivated and well cut back. J. J. T.

[For the Country Gentleman and Cultivator.]

Farming and Crops of Western Illinois.

ROCK ISLAND COUNTY, Oct. 4, 1861.

EDITORS CO. GENT.—I have delayed writing for a long time, that I might be better prepared to state the probable result of our crops for this year.

WHEAT, being the first crop that requires our attention in the spring, will be first considered. As we never plow the ground in the spring for wheat, we watch the first opportunity as the frost goes out to sow. When the ground of the fall plowed stubble, and the fields of standing cornstalks, which the cattle have browsed during the winter, is sufficiently dry, we sow the seed and start the harrow. The latter part of February and all of March up to the 22d, was very dry. Probably one-third of the wheat sown in the county, was put in up to that date, the ground being very loose and mellow. The remainder of the wheat seeding season was wet. Heavy rains packed the ground, and all the wheat sown in the mud yielded lightly, while the early sown, that had a fine mellow seed-bed, yielded nearly an average crop. Our season on the whole, for a wheat crop, was not a good one. Spring was wet and cold, the ground heavy by too much rain, and when the crop headed out the straw was short, and the growth very uneven; some tall and many short straws, more so than usual. The rust and Chintz bug did much damage in all localities, while the army worm took all in some places. We had good weather for harvesting and nearly all was in good condition when stacked. Last year our wheat yielded more than our estimate when stacked, which led farmers to put too high a yield on the crop of this year. Some of our western editors, (some not knowing the difference between wheat and other grain,) rode out on the railroads, and forthwith out came lengthy editorials, blazoning to the world that the Great West had raised her millions, equal to the crop of last year. *The old farmers read and shook their heads.* Thrashing commenced, and where twenty bushels was hoped for, twelve was about all the *machine could shell out*, and so down to five bushels per acre. There were a few fields that yielded twenty-five bushels per acre—some ten, and some barely paying for the work in harvesting; and many fields not cut at all. We now learn from what has been thrashed, that about one-half the amount of wheat was raised in Illinois, Wisconsin, Minnesota and Iowa, that was raised last year, and not of as good a quality.

Another serious draw back is now upon us. We have had for the last six weeks, many long and heavy rains, scarcely three days of fair weather at a time. Our grain stacks are badly damaged, some being wet through from top to bottom, and many have a green carpet of grown wheat on the top and sides. During this time but little thrashing has been done; some, however, thrash as well as they can, and get the grain where it can dry. Much of the wheat received at Chicago by rail during this wet weather, is placed in the class of *rejected*, and gone into store to rot or dry.

There were many who believed that a large crop had been raised, and as we would have no market south during the winter, and low prices must rule, rushed their wheat into Chicago, there being no other market, at a rate never before known, some weeks a million bushels being received. A great share of this rush to market was of the old crop. Warehouses were full. Shipping rates came up. From 11 to 13c. for corn, and 14 to 15c. per bushel for wheat is paid from Chicago to Buffalo, which is more than double that of usual freight. Our wheat market varies as we distance Chicago, bringing there from 65 to 78c. per bushel. Railroad freights about 5c. per hundred miles. Many towns on the Mississippi River, that usually have shipped their produce south, now take it by steamboat to some railroad that intersects, thence to Chicago—so that wheat in the bins of some of the farmers is worth about 40c. a bushel.

If the fall of rain has extended all over the northwest to the amount we have had here, (over four inches fell last night on a level,) we may look for more serious damage in our grain stacks, and corn will be slow in drying for the crib.

P. S.—As we have but little winter wheat, my remarks are wholly on spring wheat.

BARLEY—the next crop that requires our attention in the spring. As we raise but little of this grain, little need be said. It is mostly sown soon after wheat, and usually on fall plowing, harrowing being the only cultivation given to it. A fair crop for the amount sown was readized this year. It is usually cut with a reaper, bound and stacked as wheat. That not thrashed shares the same fate in the stack that wheat does, "taking the rain as it comes." Price at Chicago, 26 to 30 cents per bushel.

RYE—next in order. More rye is being raised in this vicinity than in former years. A fair crop was raised this year, yielding some 25 bushels per acre. Being inconvenient to stack, it is usually thrashed as hauled from the shock, and the straw piled for winter use. Price at Chicago, 26 to 30 cents.

OATS.—Owing to the low price of oats, and from the fact that we can raise a bushel of corn as easily as a bushel of oats, the oat crop is not much depended upon from which to make money or to feed. Our oats are usually sown as early in April as the ground is ready—usually on fall plowing or on cornstalks as our wheat; seldom plow in spring for this crop. There was not a wide breadth sown this season, but the crop seldom has yielded better. The straw ripened very brightly and the grain very heavy. Many fields were judged to yield sixty and some as high as eighty or more bushels per acre. Price at Chicago, 12½ to 14 cents.

CORN OUR STAPLE CROP.—Owing to our cold wet spring, corn was not planted in a condition to hope for a very good crop. On the first of May it was quite dry for a few days; the corn planter was brought out and put to work; many large fields were then planted, the driver and dropper wearing overcoats and mittens to keep warm. The ground being so cold, much of this planting rotted. I will here remark that better seed corn was never committed to the earth than we had last spring. The usual care was taken to save it in the fall—that is by going into the field and selecting the largest and most perfect ears, which were strung up in the loft of some building out of the way of harm. In fact we had no other but seed corn last year; every ear was ripe—even the hogs were obliged to eat it as we had no *nubbins*, nor none that we sometimes call *hog corn*. They got along with it very well however, and no *serious* results attended its use. By the 20th May, the greatest bulk of our corn was planted. Our ground is fitted either by fall or spring plowing, usually at the depth of from four to six inches, harrowed and marked out one way with a marker. The machine made by Brown of Galesburg in this state, (and there is none better,) is drawn by two horses; the driver and dropper ride. This machine will plant from twelve to twenty acres in a day, and with the wheels roll the rows about a foot wide, thus crushing all the lumps, and do the work better than a man can plant half an acre a day with a hoe. Our season through has not been very favorable

for a large crop. During the month of July and part of August, it was very dry. At the time of setting for ears, corn wants very favorable weather. If too dry, small ears are the consequence. We use no kind of manure for this crop. The cultivation is done wholly with the plow, harrow, and cultivator. We have no use for the hoe in raising corn. Probable yield throughout the North-west as near as I can gather from the most reliable sources, will be about twenty-five bushels per acre. Some and many fields will yield sixty and some eighty bushels. But there are many fields that wont yield ten bushels. As we are now paying fourteen cents a bushel for freight from Chicago to Buffalo, and about four cents per hundred miles on our railroads leading into Chicago, our corn is worth in the hands of the farmer from eight to twelve cents a bushel—cheaper than wood for fuel in some localities, and used as such.

We look for higher prices next spring. If the Erie Canal has moved 25,000 bushels of wheat and corn east daily, as is stated since May 1st, last, from Buffalo alone, nearly all of which is grown in the North-west, our cribs with our light crop of this year will be quite empty before long. And if the eastern officials will let our Gen. Fremont alone, he will have a Mississippi river for us to use by next spring, and then some of our produce will find its usual market south.

Potatoes.—As millions of bushels rotted last spring in the hands of the farmer for want of the Southern market as usual, but few were planted. Our season has not been favorable, and a light crop only is realized. Enough however for table use. We never feed them to stock.

Vegetables of all kinds, fair, though in no great abundance. Squashes and pumpkins very scarce, and poor flavor. Onions good—now selling for 15 cents per bushel. Of tomatoes, very few.

Apples—Our orchards have borne a fine crop of this valuable fruit this year. Some have a few hundred bushels to sell. Owing to the newness of our country and too much negligence of the farmer, there is not one in a hundred who has raised any; but in a few years more we hope the West can raise a good supply. Apples are now selling at the orchards at from 30 to 40 cents a bushel. At our County Fair, T. McWhorter, an old nurseryman and orchardist, exhibited 150 named varieties of apples, and D. J. Noble 120 varieties.

Sugar Cane.—Many farmers have their patch of this crop, varying from a quarter to twenty acres. The mills are now being drove night and day to work it up before cold weather. It is impossible to give any idea as to the probable amount of this crop. Enough however to tell well in the pockets of those who raise their own molasses. The farmer hauls the cane to the mill, and gives one-half the syrup to the manufacturer. C. G. Taylor.

ARRANGEMENT OF CATTLE STABLES.

Eds. Cultivator—In a building 30 by 46 feet I wish to make a double row of stalls for accommodating twenty cows. Will you give me the best plan for doing it? Is it best for cows to stand with their heads towards or from each other? For feeding the former would seem preferrable, while for cleaning out the stable, and for milking, the latter claims advantages. What would be best for them to stand on the year round, a plank floor, or cement, or neither? I intend pursuing the soiling system, and wish feeding arrangements convenient, also those for saving *all* the manure, liquid and solid. Please answer the above inquiries in the next number of your valuable paper. A. A. U. *Clinton Corners, Duchess Co.*

It is best to place the stalls so that there may be two feeding passages—one on each side next the walls, and to have one manure passage in the middle—because it is much easier to give the food than to clear away manure, litter stables, &c., where they are kept as clean as they should be. In a small stable the wheelbarrow will do to carry off the manure—in a larger one a cart-way should extend through the middle, with doors at each end; the manure may then be taken directly to the land and applied at once. For the plan described in vol. xvii., p. 106, of the Country Gentleman, the mangers must be in the centre. In either case openings or shoots must be provided for throwing down the fodder from above, over the feeding passages, as well as others for the littering straw. Where straw is abundant, as it is on all grain-growing farms, plenty of litter will absorb all the liquid and keep the animals more comfortable. Where litter is scarcer, a trough must be made behind the cattle, wide enough to receive a square shovel to throw out the manure. Flagging is best—neat paving next, if plenty of straw can be used at all times. Hard burnt brick, on edge, make a good floor. Cement is apt to crack by freezing. Wood does well where straw is not abundant, as it may be easily cleaned.

[For the Country Gentleman and Cultivator.]

How to Make a Concentrated Manure.

A manure may be produced which will possess an equal degree of fertilizing power with the best guano, and at a much cheaper rate.

Proceed as follows: Construct your stables in such a manner that the urine from your stock, and particularly from your horses, shall be all emptied into a large reservoir, fitted up in your barn-yard. Into this reservoir or excavation, put *all the weeds and waste grasses*, &c., &c., of your fields or hedge rows, &c., or any other useless vegetable product—throwing over each layer as it is packed in, a *thin coating* of the following composition, viz.: sal ammoniac one part, and lime two parts. This is to be sprinkled on each layer of weeds, &c., of six or eight inches in thickness; and upon this, or upon *each of these layers*, is placed a thin layer of earth.

After your reservoir is filled, sprinkle over the top layer from time to time, a thin layer of common plaster of Paris, (sulphate of lime.) This will prevent the evaporation of the ammonia formed. Next, into your reservoir so filled, let all the urine from your stock gradually drain, so that it runs over and entirely through the mass. From six months to a year may be necessary fully to incorporate the materials; but when ready, 100 weight of this manure, mixed with common barn-yard manure, will contain more real vegetable sustenance than the same weight of guano. It may not appear so evident as the guano in the first crop, but its action will be increasingly manifest, while that of the guano is exhausting to the soil, by simply calling up nutrition from an indefinite depth, while it imparts nothing which its own action does not exhaust. As a general rule, "small grain," such as rye, wheat, oats and barley, requires a less *concentrated* manure than potatoes and garden vegetables generally; you can therefore vary by mixing with a lighter manure.

To Manure for One Crop.

For a single crop of wheat, rye, oats, &c., select any given grass field whose supply ceases to be remunerative. In the month of June pass through it and sprinkle over it sal ammonia and lime, two of the latter to one of the former, in powder, as you would plaster, but in less quantity. Then plow down the grass, taking care not to sprinkle too far ahead of the plow. After thus having turned the grass under, cover the whole ground with a light coat of plaster, and let it remain until the time of putting in the crop, when you may prepare the ground by simply passing a cultivator over it, and putting in your crop—which will produce in proportion to the time it has stood from the first plowing; a year, for instance, will be better than three months. Ever keep in mind that plaster has no other effect on the soil than to retain the nutritious eliminations, and prevents their escape into the air.

The above information will be valuable to those who need additional strength to their lands, upon which no patent has been issued. Solomon W. Jewett.

San Francisco, Sept. 5, 1861.

FARMING IN WAYNE COUNTY, INDIANA.

Brief Editorial Notes.

Making Sorghum Molasses.—The country surrounding Richmond is one of the finest and best cultivated portions of the West. In external appearance—in woods and fields, dwellings and outbuildings,—it would be scarcely distinguished from the more level parts of Western New-York—the fields of tall corn, being the first point of difference that a stranger would observe. The soil is very fertile and almost wholly free from stones. The forests consist largely of oak, beech, and maple, and at the present time are brilliantly variegated with the rich crimson foliage of the sour gum and the softer shades of ash, maple, and tulip tree. The leaves of the corn were killed on the 28th with frost—a part is topped and a part cut up at the roots. It is the most important crop, and the average product is greater than in New-York—or about fifty bushels of shelled corn per acre, sixty to seventy among the better farmers, and one hundred and thirty have been raised. Wheat is hardly as productive as with us—oats about the same. The usual rotation is corn, oats, wheat, grass. The manure made by animals is applied to the corn. It is not unusual to sow wheat among standing corn, and to cover it by running the shovel-plow between the rows, leaving the surface rough or ridged, but the best crops are not obtained in this way. Weeds generally are extirpated, and farms present a neat appearance. A few cornfields were observed as clean as a floor. Land is from sixty to one hundred dollars per acre, within two or three miles of Richmond.

A more general cultivation of the clover crop, for improving the quality of the soil, would add much to the profits of farming in the long run.

The forests present a heavy growth of good timber. A hundred cords per acre are not unusual.

I have visited a few manufactories of *Sorghum molasses*, conducted on a moderate scale. One of these employed three hands and one horse, and would make about 25 gallons in a day. Two horses would have made more. The stream of juice from the grinding-mill was about half an inch in diameter, and was of a light pea-green color, from the amount of small fibrous and other foreign matter derived from the stalks. The rollers were metal, and pressed the stalks so closely that they passed off nearly dry and like shavings. Cattle were eating a portion of this refuse matter. The fresh juice was boiled down in shallow pans. No substance was added—the molasses being simply boiled juice, well skimmed during the process. From one to two hours were consumed in thus changing the juice to molasses; the skimming being continued throughout. The scum is green, and consists of the fibrous and other matter already mentioned. One cord of wood makes one hundred gallons of molasses, and the whole process, after the stripped stalks are drawn to the mill, is performed for 20 to 25 cents per gallon. The wholesale price here is 50 cents per gallon—an acre will average about 200 gallons, and consequently will yield 40 dollars or more for the labor and expense of raising and harvesting,—the cost of the latter, including the previous stripping of the leaves, being the principal part, and about three times as great as harvesting common cornstalks. The value of the leaves for fodder does not pay the expense of stripping them off.

Another manufactory, belonging to A. Mendenhall, was of a cheaper character, being merely intended for his own private use. The rollers were of wood, turned accurately, and working with iron gudgeons, and having iron cogs on the ends of the rollers, to give the proper motion. The rollers are set vertically, as usual. The cost of this grinding apparatus, which is worked by two horses, was about 20 dollars. It grinds two or three cords a day. It does not press the juice out so closely as those with metal rollers, about one-fifth being left with the stalks, but it is purer, and has less of the green matter. As a consequence, less skimming is needed, and the whole process is completed in half an hour. As all are aware, the juice should be boiled when fresh—a few hours are sufficient to cause fermentation. The pans are home-made, and consist simply of sheet-iron with plank sides, the sheet-iron being bent up so as to form the ends of the pan, and are secured to the plank by two thick rows of nails—the fire-place is a little narrower than the pans. A cord of wood boils down the juice for 80 gallons of molasses. Last year, six gallons of juice produced a gallon of molasses—this year it is not quite so rich, and eight or ten are required. Sorghum which grows on dry and poor land, although smaller in crop, yields a richer and better juice—in some instances twice as valuable as that obtained from the more succulent stalks on moist and rich ground.

Much of the sorghum raised this year has been diminished in value by allowing the seed through carelessness to become mixed with broom-corn.

The molasses has a distinct flavor, unlike both maple and cane molasses, better than the latter, and inferior to the former, but much liked by those who have become accustomed to it. But little, so far as I could learn, is offered for sale in market, farmers generally making it for their own home use. *Richmond, Ind.*, 10 *mo.* 8, 1861.

[For the Country Gentleman and Cultivator.]

LETTER FROM NEW-BRUNSWICK.

Messrs. Editors—I wish you would as soon as possible, send me two or three posters. I want to send a larger list of subscribers to your publication, The Cultivator, than that of last year, and would therefore like to commence early in requesting names. It is scarcely necessary for me to say, that in my opinion it maintains its well won reputation of being the first and best agricultural publication in America, and not exceeded by any on the other side of the water. I do not farm to a great extent, but being in the country, and on a small rough farm of 50 acres, it is to my advantage to make the most of it; nowhere can I get such valuable and reliable information as from your paper. I would not, however, advise any one to take it and endeavor to carry out all the suggestions, for your climate, soil, &c., vary too much from ours to succeed, unless *common sense* and judgment are called in to assist. Of one thing, however, I am certain, that if any one capable of reading our language, will take either of your publications, read them attentively, and after mature deliberation, *practice* what is there told him, according to the situation of his farm, he will be a gainer. Besides that, there are many topics upon which your teaching is well adapted to our locality—such as draining, utility and advantages of root crops, suitability of buildings for stock, care and preservation of manure, &c., &c.

There is a great prejudice here, as everywhere else, among some farmers, against what is called book-farming, and no later than three days ago I heard one of the largest landed proprietors in this parish, railing in most unmeasured terms against it. Now in my opinion, and I doubt not in yours also, this is a subject where both *extremes* are to be avoided, and the *mean* adopted. It would be folly

almost to expect any one to carry on a farm to advantage, no matter how well skilled in theory, in the knowledge of chemistry, and the results following the use of certain manures, unless a sober and sound discriminating judgment was at the helm to direct and control his actions. As in the professions, practice and theory must go together. Show me a sound, thorough man, who is alive to his responsibilities as a farmer, who appreciates agricultural education, and reads and digests good agricultural publications, and I will venture to say that he is a good farmer in every sense of the word. On the other hand, do we not often, and might I not say invariably, find that the opponents of what is called book-farming, are the very men who have no reliance on their calling—men who are always grumbling at the hardness of their lot, and the impossibility of making enough to pay wages. I do not, to tell the truth, wonder at such persons not being able to make anything off their farms, the way they, in their wisdom, manage matters; the only astonishment is that they are able to get anything from soil so much exhausted and so wretchedly managed. I am sure no other business or profession would stand so much neglect. If, however, such persons would adopt a few simple hints that a man perhaps without much actual experience of farm labor could give them, they would then find that the land is generous in its returns. A drain, for instance, through that lowest piece of ground at which the owner grumbles whenever he has occasion to go near it—from which, although the best piece of ground in the lot, he receives nothing, and *out of which* he has occasionally perhaps, and especially in the spring, to assist his cattle—a few loads of that rich black mud thrown either into his hog-pen or cattle-yards, dug at times when his other work is not pressing him, or perhaps when he would be lazing about the stove, would materially add to his corn crop or to the yield from his potato field—the use of a few battens and nails to add to the comfort of his cattle in the winter—these hints could be easily carried out, and would pay a large per centage on the trouble and little money required. But no, their fathers did not do so, and they will not.

I sat down to write but a few lines requesting the posters, and my letter, without being aware of it, has grown longer than I intended. I hope, however, you will *pardon* this—as the school-boys say, I won't do so again. In for a penny, however, in for a pound—as I have a little space left, I will tell you somewhat about our Provincial Exhibition, held in Sussex Vale, Kings county, last week. The building was erected upon Col. Evansens' property, in a beautiful spot surrounded by large elm trees. After the reading of an address by the Hon. A. E. Botsford, Chairman of the Agricultural Board, and the answer of His Excellency the Governor of the Province, the Exhibition was declared open. The weather was most propitious—such weather as we often have here in October—and thousands availed themselves of the opportunity offered by low fares, of visiting the place. The building itself is a parallelogram 170 by 72, the height 45 feet. The front is ornamented by a representation of Brittania, surmounted by the Union Jack; representations of the four seasons, also of Agriculture, Commerce, Science, and the Arts, in compartments, formed by Corinthian columns, add greatly to the effect, and prevent a sameness in appearance. As you, however, are at a distance, and do not take that interest in it which we *natives* do, I will mercifully withhold a detailed description of the buildings. It would be impossible to describe the articles—all branches of industry were well represented. The forest, the field, the forge, the loom, all sent their contributions; nor were other manufactures behind in their efforts to render it a credit to the Province at large. I assure you we New-Brunswickers are gratified with the display. The Exhibition comprised articles in Agricultural, Horticultural, Industrial, and Native Departments; the latter embracing stuffed animals, birds, shells and fossils, woods, minerals, ores, paints, rocks, &c. I would here call your attention to the production of one article, for which, strange to say, we depend solely upon our neighbors in the West—I mean wheat. One sample weighed 64 lbs. to the bushel—yielding 23 bushels to the acre. The States of New-York and Ohio, I believe, do not average more than 21 bushels. With reference to the grain-growing portions of Canada, the yield is still more in our favor.

The display in the Cattle Grounds, though not large, was extremely good. Short-Horns, Devons, and Ayrshires, were well represented. South-Downs, Leicesters, and Cotswolds, were all to be seen, and of these there were some good specimens. In the pig line, we had the large nameless variety, the Suffolk, Essex, Berkshire, Small Yorkshire, with crosses upon the old stock, forming as good a collection as one would wish to see. The display of horses was good—this, in a measure, owing to importations recently made from your section. While the horses were being exhibited, a plowing-match was going on in the adjoining field—here the work was well and thoroughly done.

I was much gratified at meeting with gentlemen from the State of Maine, who had been invited by the Board to act as Judges, among whom were the Messrs. Anderson of South Windham and Portland, Mr. Goodale, Secretary of the State Board of Agriculture, and Col. Perley; others were present with whose names I am not acquainted. Mr. J. F. Anderson is the Maine breeder of Devons; his gentlemanly bearing, courteous and affable demeanor, have made him many friends. C. P. B.

Kings County, N. B., Oct. 12, 1861.

[For the Country Gentleman and Cultivator.]

Is Farming Profitable---Or Does it Pay?

EDITORS CULT. AND CO. GENT.—The above questions have been largely discussed of late in the Agricultural Journals—at State and County Fairs, and among farmers and others, "where two or three have met." The conclusions arrived at by different individuals are quite dissimilar.

Money and labor invested in lands and agriculture, are like capital and labor employed in mercantile, manufacturing, and mechanical pursuits. In these some succeed, and accumulate large fortunes; others fail. In agriculture, more especially in the New England States, the liability to bankruptcy is less among farmers than among some other classes, and the chances of accumulating a large fortune is also less. But as far as a comfortable living and pecuniary independence is concerned, taking into account the relative numbers engaged in different pursuits, I am strongly impressed with the belief that farming is the safest business; and whether this or that individual makes his farming pay, depends upon a great many circumstances, some of which will be found *put down* in the subjoined letter.

Cost and Profit of Certain Crops.

Being at Concord, N. H., not long since, I called upon JOSEPH B. WALKER, Esq., one of the prominent farmers of that town. The question respecting the profits of farming was introduced, and to illustrate the correctness of some of his statements, he referred to his farm accounts and diary, where the "outgoes and income," or the actual cash expenses and receipts, are kept with the same degree of accuracy as though he was dealing with an individual, instead of his farm. The expense of every crop is also kept, and in fact everything connected with his farming operations. By carefully pursuing the above system, he is enabled to ascertain the profit and loss of his eight years farming, and also to know what crop pays the best for the outlay or cost of cultivation. No doubt it will surprise some of the prairie farmers, to learn that the most profitable farm crop grown here, under favorable conditions, is that of Indian corn.

But to Mr. Walker's letter, dated,

CONCORD, N. H., OCT. 11th, 1861.

"FRIEND BARTLETT—We were discussing the other evening the oft repeated question, "Does farming pay?" &c. I regretted you were obliged to leave us so early.

I have thought of it several times since. It is not one of the questions we can answer generally and for every one, yes or no. Whether farming does or does not pay, depends, I think, upon various circumstances, as the character of the farmer himself; his skill and general business ability; the condition of his land; his location as to markets, as well as some other conditions, which might, if necessary, be adduced.

"I think it pays me, and for evidence of this assertion I give you the following estimate of the costs of production of three of our leading crops, viz: Corn, Oats and Hay. They are based upon the supposition that labor costs one dollar per day, and manure four dollars per cord, the ordinary market price in this place; and that the average yield of corn is 50 bushels per acre, of oats 50 bushels per acre, and of hay 1½ tons per acre. They are also presented in the common eight years rotation of corn one year, oats one year, and grass six years. The sum of the three estimates being the estimate of this eight years rotation. I would also remark that while any good farmer's labor is cheap at one dollar per day, he can make his manure at a cost less than four dollars per cord."

In the following estimate, it will be seen that he charges one-eighth of the expense of the "breaking up" the sod land, and one-quarter of the manure, drawing out and spreading and harrowing, to the corn crop; the balance is taxed to the oat and hay crops.

Cost of One Acre of Corn One Year.

⅛ expense of breaking up one acre of ground,	$0.75
¼ cost of 10 cords manure, at $4 per cord	10.00
¼ expense drawing out and spreading manure,	1.50
⅛ expense harrowing and plowing in manure,	50
Seed and planting	1.00
Hoeing three times (actual expense 1861.)	6.67
Cutting stalks,	2.50
Drawing and storing stalks,	1.00
Husking and storing corn,	4.38
Cutting and storing butts,	2.00
Shelling (50 bushels,)	2.50
	$32.80
From this deduct 2 tons of corn fodder, at $4 per ton,	8.00
and there remains as cost of 50 bushels shelled corn,	$24.80

making the cost per bushel 49 3-5th cents.

Cost of One Acre of Oats One Year.

⅛ part expense of breaking up the ground previous year,	$0.75
¼ expense of 10 cords manure, drawing out and spreading,	11.50
⅛ expense of plowing in and harrowing,	50
Plowing twice and harrowing after corn and before sowing,	3.50
Two and a half bushels of seed oats,	1.25
Sowing and harrowing,	75
Cutting and stooking,	5.00
Hauling into barn,	1.00
Threshing estimated yield of 50 bushels of oats at 6 cents,	3.00
	$27.25
From this deduct 1½ tons straw, at $8 per ton,	12.00
making the cost per bushel 30½ cents.	$15.25

Cost of One Acre of Grass Six Years.

⅛ expense of breaking up ground,	$4.50
½ expense of 10 cords manure,	20.00
¼ expense drawing out, spreading and harrowing in manure,	4.00
Grass seeds, sowing, harrowing, &c.,	2.00
Cutting, curing and housing 9 tons of hay (1½ ton per year,) at $2.50 per ton,	22.50
Cost of 9 tons of hay,	$53.00

Or, $5.88 per ton.

"I believe (says Mr. W.) the above estimates to be pretty accurate. Indeed they are for the most part drawn from records of cost of these crops, entered in my Farm Journal from time to time for my own guidance. I don't think you will find the expenses under-stated, or the crops over-estimated. It is plain that corn at 49 3-5 cents per bushel, oats 30½ cents, and hay at $5.88 per ton, each pay a profit, provided they are disposed of at the ordinary market price here. At some other time we will figure out the cost of rye, potatoes, barley, &c.

"So far as these estimates go, they answer the question to me. Others perhaps are doing much better than I am, getting better crops and at a less expense; while others still may not be doing as well. The question, 'Does farming pay?' is one every farmer should answer for himself, and from his own figures, and then he will know whether or not it pays *him*. J. B. WALKER."

From the estimates here presented by Mr. W., it will be seen that the profits on an acre of corn of 50 bushels, at $1 per bushel, (the average price at Concord and vicinity for the past six years,) amounts to $25.20. If I am any judge of the yield of corn, as seen in the field, Mr. W.'s crop will yield at least 70 bushels per acre this season. If so, then the net profit will be over $40 per acre. The profit on the oat crop—50 bushels per acre at 50 cents per bushel, amounts to $9.75. His hay, of which he sells a large amount annually, averages $15 per ton—1½ tons per acre, $22.50; deduct cost, $8.82, leaves a balance of $13.68, as annual profit, per acre for six years. But I am satisfied that he greatly under-estimates his yield of hay. The past season he had acres of grass that was fully satisfactory in point of yield. He would not have thanked any one to have added a single spire to his crop.

It will be seen that Mr. W. charges $2.50 per ton for cutting, curing and housing a ton of hay. By referring to some of the recent back numbers of the Co. GENT., we find estimates by several writers on the cost of cutting and securing hay—some making the expense at about 75 cents per ton, and from that all the way up to $2. It is not within my province to reconcile these differences. Mr. Walker has within his reach, every *possible condition* of securing his hay crop that the most favored farmer has—an hundred acre mowing-field, almost as level as a house floor—not a rock, stump, or any obstruction, except lodged grass. He has good and large horses, oxen, hay-carts, mowing-machine, horse-rakes, &c., &c., and his barns stand but a few feet higher than his mowing-fields.

The farm of 320 acres has now been owned by the Walker family for 131 years. The present owner, (J. B. W.) being of the fourth generation from the original proprietor, the late Rev. Timothy Walker, who was one of the original settlers of Concord, and as such received a proprietary share of the lands of the township. He was the first and only settled minister of the town for fifty-two years—being ordained in 1730 and dying in 1782. From him, the farm became the property of the late Judge Timothy Walker. Upon his decease, it fell to his son, the late Capt. Joseph Walker, who died in 1833, leaving the farm to his only son, the present proprietor, then ten years of age. For the succeeding twenty years the farm was rented to tenants, and as a matter of course, the buildings and fences became much dilapidated, the fields overrun with bushes, and the farm in every way declined much in condition and productiveness. During the time, Mr. W. received a college education, graduating at Yale College in 1844; studied law, and was admitted to the bar in 1847. But wishing to keep the "Old Homestead" in the family, in 1853 he turned his back upon the "legal profession with all its subtleties," and became a farmer in good earnest.

With sound judgment, skill, perseverance, and abundant cash capital, with a generous outlay of it, he has in eight years wrought wonders by way of improvement upon the farm; and what is quite satisfactory, the balance sheet shows the cash sales from it more than covers the expenditures, so that henceforth he believes he can sell one hundred tons of hay annually, and keep from 30 to 40 head of cattle, 2 horses, and from four to six swine, and still keep up and increase the fertility of his lands—the growth of stock and other proceeds of the place, (aside from the hay sold,) covering all expenses of carrying on the farm; the proceeds of the one hundred tons of hay sold being the net annual income of rent or interest derived from the cultivated and grass portions of the farm. And from a pretty close investigation of the matter, I have no doubt of the correctness of his belief.

By the drainage of two ponds on his intervale, it has pretty effectually drained 25 to 30 acres of formerly wet land, and given him easy access (at almost all seasons of the year,) to inexhaustible beds of the finest muck for composting, the value of which he fully understands.

Soiling Cattle---Liquid Manure.

In a note to his letter of the 11th he says—"I last week spent an hour or two at Hon. JOSIAH QUINCY'S farm, and saw his splendid farm, stock, &c. His is the best conducted and most reliable experiment of soiling we have

had in this country, and will well repay the careful study of any good farmer."

A few weeks since I received a letter from Mr. QUINCY jr., in which he incidentally remarked:—

"My system of soiling gives me a vast amount of manure, both solid and liquid; and I find that dry peat muck saturated with urine, is far stronger than the solid excrements of the cattle. I mention this to show that I have no fear of exhausting my land by any crop I may raise. I shall keep one hundred cows this winter."

After so many reliable statements, made by competent and disinterested farmers, of the manurial value of the liquid excrements of farm stock when taken up by dry muck, or other good absorbing material, and when the truth of its value is so universally acknowledged by nineteen-twentieths of our practical farmers, "it is strange, passing strange," that so few of them take any measures to guard against this great leakage, and will freely pay away their money to purchase superphosphates and other commercial manures, without its once entering their thoughts that by so doing they are "saving at the spiggot and losing at the bung." LEVI BARTLETT.

Warner, N. H., Oct. 18, 1861.

[For the Country Gentleman and Cultivator.]

Steaming Apparatus---Hints about Stables.

MESSRS. L. TUCKER & SON—In your esteemed paper I have noticed several inquiries from parties wishing the best plan for a steaming apparatus for steaming food for milch cows and fattening cattle, and having found one in practical working, have deemed it would be very acceptable to yourself and a large number of readers. I deem it also nearly perfect, and I do not know of any improvements that I could make. I would premise by stating that I found it on the farm of Mr. SMITH LEWIS, two miles from Madison, in this State. Mr. Lewis and father are farming some two hundred acres—usually milk some fifty cows, sending the milk by railroad to either Newark or New-York.

The steam-boiler for generating steam, is at some distance from the barn, to avoid all danger from fire—the steam is carried in half-inch iron pipes, I should say 150 feet, to the steaming-box.

His barn and stable is what is called a side-hill barn, in the form of an L. The hay, straw and stalks are cut by horse-power in the upper part, where they cut enough one day to last several.

Mr. Lewis' steaming-box is made of two-inch pine plank, six feet in each direction, length, width and height. It is attached to the upper floor of the barn in such a way that its top comes about three feet above this floor, which brings the bottom of the steam-box about four feet above the floor below. The top of the box contains a trap-door through which the feed to be steamed is put. There is a false bottom in the interior of the box, one or two inches above the real bottom, and filled with augur holes. The steam enters beneath this bottom, and is diffused through the augur holes into the contents of the box above. Upon the side of the box, just above the false bottom, there is a door hanging upon hinges, of the full length of the box, (6 feet,) through which when raised, the cooked feed can be withdrawn. The object of having the bottom of the steam-box elevated as it is, above the lower floor of the barn, is to admit of rolling underneath it a box upon small wheels, into which the cooked food is drawn from the steam-box, and where it remains to cool before it is fed to the stock.

Mr. Lewis' method of cooking is this—if he cooks meal and hay, he first puts into the box a quantity of cut hay, then meal, then puts on enough water to wet it, then another layer, &c., until the box is full; the cover is then tightly placed, and the steam let on. He uniformly wets the mass—as he found that there was not moisture enough unless well wetted—before steaming; when not wet, the steam seemed to dry it still more, and burn not cook the mess. I understood him to say that he tried steaming roots—turnips, &c.,—but soon gave it up as unsatisfactory. The writer thinks he understood him to say that they either did not eat them as well, or did not do as well on the cooked roots.

Another word of caution to those about fixing up a box for steaming food. At the time of my visit, the steam-box was in the basement, and in the same room as his milch cows, and this he found highly objectionable on the score of health, for in winter a very large amount of steam would escape into the room—already surcharged with moisture from the breath of the cattle—and the additional steam made it much too damp, impairing the general health of the animals. He spoke in particular of this, cautioning me against the evil, and said he should make some change.

The writer greatly regrets his inability to give you facts as to the advantages of feeding steamed food, now that he is on the subject of steam boxes, but he will promise to gather the experience of others and state the difference.

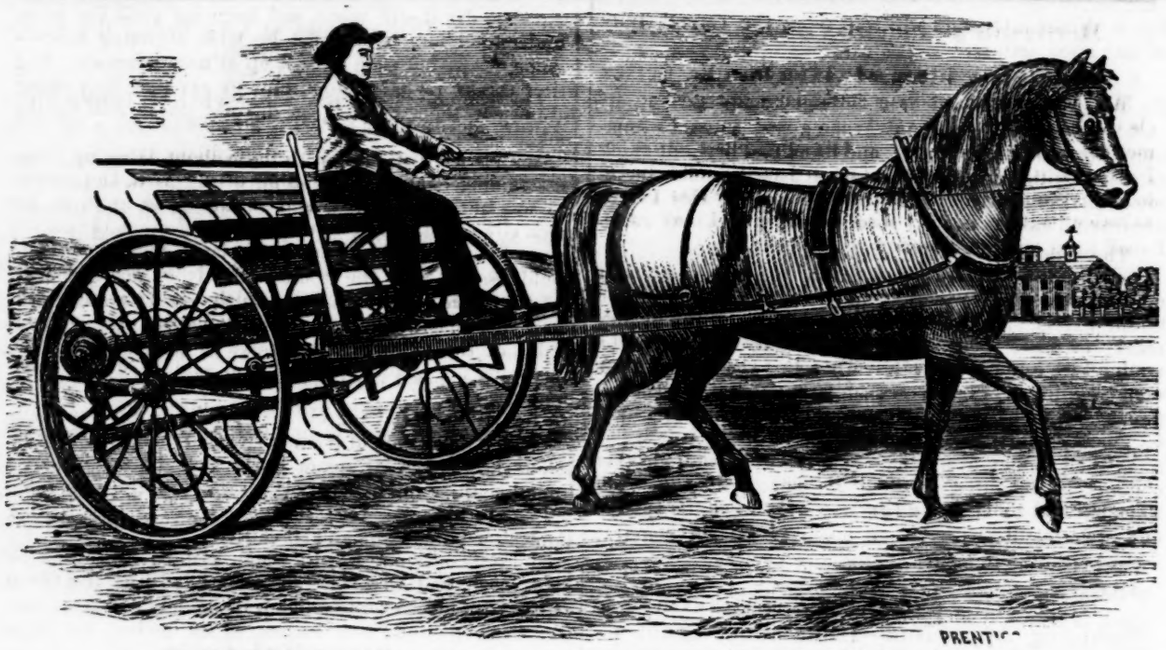
I would say one word to those who are constructing stables for milch cows and all cattle.

There is only one way in which stabled cattle can be kept clean, and that is in stanchions. Three feet from centre to centre is quite enough for heifers and small cattle; three feet and four inches, or six inches, for large cows and cattle is the correct distance, and this gives ample room. But the platform is important, and its length should depend on the length of the *animals*. Some writers advise and say four feet four inches is the correct distance—and on the same principle, why do not these men advise all coffins or boots made of one uniform length—as though a small cow wanted as great a length as a big ox. Now, sir, I have cows whose length of platform should vary from four feet two inches to five feet two inches; and I think that in making a platform it should at one end be four feet two inches for the small cows, and extend to five feet at the other; thus you would have a platform to accommodate different sized animals. If the animals are medium size, four feet four inches is the best length—of this length, their droppings will fall into the gutter. This should be two feet wide—not less than 20 inches, and six inches to eight inches deep—water tight, with a fall of one inch in six feet, or eight. The walk behind the cows should be four feet, elevated like the platform, or two inches higher. I prefer the same height. The stanchions should be very strong and substantial. The manger two feet; the space for feeding in front of the cows, if in a single row, six feet—if a double row of cows, twelve feet; or in other words, if the barn is designed for a double row of cattle facing towards the centre, it should not be less than forty feet wide, and the stable *ten feet high*. If a barn for a single row of cattle, it should not be less than twenty-five feet wide, and the higher the purer the air. The manure gutter two feet wide and water tight, the urine runs outside on to the manure and mould heap; the manure is easily *pushed* out of *the stable*. The gutter made water tight and capacious, is the place to deposit muck and turf, and when saturated, easily pushed off into the manure heap. The place for the manure wants to be basin shaped, covered, and water tight, retaining all the liquids and solids until carted away; and such is the writer's. But I must close. "OLD HURRICANE." *Jersey Farms, N. J.*

EXPORT OF BREADSTUFFS.—The following table exhibits the exports of breadstuffs from New-York from Jan. 1 to October 23, for the years 1860 and 1861:

	1860.	1861.
Wheat Flour, bbls.	1,380,491	2,220,310
Rye Flour,	7,291	9,561
Corn Meal, bbls.	76,956	96,704
Wheat, bushels,	8,696,628	19,571,748
Corn, bushels,	2,252,960	9,642,109
Rye, bushels,	450	585,380
Barley, bushels,	8,280	1,060
Oats, bushels,	102,508	147,734
Peas, bushels,	103,401	250

☞ During the last week there were exported from New-York to Europe 1,377,546 bushels of grain and 82,524 barrels of flour, estimated to be worth two and a quarter millions of dollars.



STODDARD'S HAY TEDDER OR HAY-MAKING MACHINE.

We give above an engraving of the Hay Tedder patented and manufactured by Mr. J. C. Stoddard of Worcester, Mass. Its object is to follow in the wake of the Mowing machine or Scythe, and make or cure the hay by throwing it up to the sun and air nearly as rapidly as the mowing machines cut it, doing the work of from eight to twelve men, thus saving 90 per cent of manual labor, and in most cases, with a good sun, enabling the farmer to cure his grass sufficiently to be secured the same day. The wheels of the mowing machine press a portion of the grass tight into the ground; the tines of the Tedder pick it all up and leave it light and loose.

The inventor claims for his machine the following advantages over those in use so commonly in Great Britain:—

1. It is only about one-half the weight of the English; the English machine varying in weight from ten to thirteen hundred pounds.

2. It is much more simple and mechanical in its construction, composed of fewer parts, and less likely to get out of order.

3. The manner by which the reel is turned may be said to constitute the novel feature of this invention, by which the practical working of the machine on all grounds, rough or smooth, is rendered a complete success, viz., by friction. The great advantages obtained by driving by friction are two-fold: 1st. The friction rolls will yield or slip on their bearings when the tines strike an obstruction, thus checking the momentum of the reel, and preventing the breaking of any of its parts; 2d. The friction rolls, by means of the hand lever, are thrown alternately on and off the bearings with perfect safety to the machine by a careless operator.

4. The height of the tines from the ground is regulated in a moment of time by the hand screw, front.

5. The reel can be elevated when passing over an obstruction or through a ditch, instantly, by bearing on the hand lever; a convenience which no other machine possesses.

6. There is an easy spring seat to sit upon; the English has none.

7. One horse works this machine without difficulty, doing nearly the same work of two on the English, it being much lighter of draft.

8. Another important feature is the peculiar form of the teeth, with a boss or swell presented to the grass, which prevents the grass from winding on the reel.

9. A lad will do the work of from eight to ten men in turning or making hay after the grass is cut.

10. When the grass is wet, the water can be switched out of it effectually by passing over it with the Tedder, leaving it lighter and looser than can possibly be done by hand.

MAKING PORK.

In one respect, farmers commonly show the worst of their management in fattening hogs. These animals appreciate and enjoy cleanliness, yet their owners make them live in dirt, and then charge them with a fondness for filth. This is oppression and slander combined. Every person familiar with their habits, knows that when clean straw beds and other comforts are given them, they are scrupulous to keep them clean. When shut up in a narrow pen, where they must eat, sleep and live in one apartment, they cannot but be uncomfortable; and such a condition greatly retards their thriving. A "hog pen" has become proverbially a repulsive place; this is the owner's fault, and should never be suffered. There is no reason why it should not be neat and attractive. We hear farmers who raise grain say they have more straw than they can use, while at the same moment their fattening hogs have not enough of it to make a dry and clean bed.

Animals can never thrive well unless kept clean. The rule applies to swine as well as to horses. Every one knows that a well groomed horse is better than a neglected one with a shabby coat. Nearly the same result has been found when this treatment is applied to swine. Let every manager lay down this rule, that *a hog pen should never be distinguished by its odor twenty feet distant.* The sleeping apartments should be separate, and be perfectly clean and dry. The other portion should be cleaned out at least twice a day, and the manure at once mixed with muck, loam, coal ashes, &c., to make compost and destroy the odor, which is as injurious to the health of swine to breathe, as it is to men and women. It is not necessary that a piggery should cost five hundred dollars that it may be kept in splendid order; a cheap and simple structure may be subjected to the most perfect system of cleanliness. The satisfaction it will afford to the owner, the comfort to the occupant, and the profits to the purse, will be a three-fold compensation.

Horticultural Inquiries and Answers.

Cultivation of Asparagus.

Will you or some of your correspondents, give an article on the cultivation of Asparagus? Time to sow—method of making the bed, and its subsequent cultivation. I presume it has been treated on in your columns, but not to my recollection since I have been a reader of your valuable paper. J. W. *West Rupert, Vt., Oct.*, 1861.

The giant asparagus is best—it is not a distinct variety, but the common sort made large by plenty of manure and good cultivation, and especially by not planting too thickly. The plants are raised from seeds, planted just like an onion bed, and set out finally when two years old. Strong one-year plants, are better than stunted two or three year ones. They may be had of most nurserymen, at a cheap rate, and thus save time. Set them out very early in spring—if set in autumn, they may perish in winter. The ground should be made very rich—beds are usually dug two feet deep, and then made about half manure—which is well enough, if plenty of room is given to the plants—but a bed a foot deep, with ample space for the rows, is better than a crowded one three feet deep. Expose the roots to the air as little as possible in setting them out; they should be set by a stretched line, in a spaded furrow, with the crowns of the roots about two inches below the surface. It is common to set them in rows a foot apart, and less than a foot in the row. We should prefer a foot and a half apart, or even more, and not nearer than a foot in the row. Sow salt at the rate of twenty pounds or so to the square rod, and rake in or let the rains carry it in. Keep clean of weeds—cover late in autumn with three inches of manure, to be forked in early in spring, taking care not to injure the plants. In three or four years, they will be in full vigor, and will last 12 or 15 years. Top-dress every autumn as already described; cleaning out weeds, hoeing, &c., will keep the bed from thus rising too high. Cut the shoots when about four inches high, and do not continue cutting after early summer.

Plums for Drying and Preserving.

I wish to inquire which of the several varieties of the Damson plum is most profitable to grow for preserving purposes, and which the least troubled by curculio?

Middlesex County, Mass. OLD SUBSCRIBER.

Thick-skinned plums are most likely to escape the curculio, and in this respect nothing is equal to the old *German Prune*, which is a very hardy tree, growing well in nearly all soils, and it makes a good drying plum, but not so rich and delicate as some others. *Prune d'Agen* is a much better plum in flavor, but the tree is a moderate grower, and it has not been extensively proved as a prune. The *Italian Prune* or *Fellenberg*, is an excellent plum of this class. The great hardiness and vigor of the *Monroe Gage* may render it valuable for drying. The same remark, especially as to hardiness of the tree, will apply to the Schenectady Catharine. The Saint Catharine of Europe, is largely raised in France as a prune. The common blue Damson, the English Shropshire Damson, and the winter Damson, are all very productive, but rather more liable to the black knot than other sorts. The Frost Gage proved a very valuable and productive late plum, until the knot became so troublesome upon it. Our correspondent will see that each sort has its good and bad points, and he must select, according to his preferences.

Securing Celery.

A Subscriber will be much obliged by plain directions for securing Celery, so as to keep during the winter. Mice and frost are his great enemies.

Delaware County, Penn., 10 mo. 10, 1861.

For common family use, it is best to let it remain where it grew, and to cover it. It is difficult to take it up, without more or less injury. To facilitate covering, dig a pretty deep trench for it to grow in—let it be in a sheltered place, where winds will not sweep off the covering, nor cause deep freezing. It must be covered deep, as freezing will spoil the celery. There are three materials for covering,—fresh manure, (which may be used for other purposes when spring arrives,) sawdust, and forest leaves. The latter are best, but need some protection on each side, (as for instance a row of pea-brush stuck into the ground,) and a covering to hold them from blowing away.

Where the subsoil is not fertile, the trench in which the celery is set, should be three feet wide, and three or four inches of old manure spaded and well mixed in before the celery plants are set out, in order that the roots may have a good chance to grow. If a stream of water could be occasionally turned into this trench, to fill it a few inches, it would accelerate the growth.

Grape-leaf Galls.

Can you tell me what insect it is that deposits its eggs in the leaves, young shoots, or tendrils of the grape-vine, thereby causing bunches or tumors like the enclosed specimens? It is mostly done in the early part of summer, but a few are laid in autumn. Have they ever been known to do serious injury to the vine? If so, what is the best remedy? OLD SUBSCRIBER. *Middlesex, Mass.*

This insect is the grape-leaf louse, (*Pemphigus vitifoliæ* of Fitch,) and is briefly described in Dr. Fitch's Third Report of Insects of New-York, page 79, and in the Transactions of the New-York State Agricultural Society for 1854, p. 862. We are not aware that it has ever done any serious mischief.

DEGENERATION OF SORTS

The way that varieties of the strawberry degenerate, is pointed out in the following extract from an article in the *Prairie Farmer*. The same reason will apply to many other things—the high culture which costly plants are apt to receive, producing the most satisfactory results, until they become cheap and abundant, and as a necessary consequence, receive total neglect:

There is one way that it appears to us this degeneration matter is brought about, and if so, it is not so much from the inherent tendency to deteriorate, as to the less and less care given in the cultivation of an old, and therefore cheap kind. We will endeavor to illustrate in the case of Wilson's Albany. For the last few years, immense demand has existed for this highly extolled berry. Those at all conversant with the subject, know that plenty of room is requisite to get the greatest quantity of runners from a given number of plants—the sale being perfectly sure, all dealers give this room; the consequence is, while the plants are worth say $10 per 1,000, all are fine large plants, and give a fair crop, even the first year after planting. Such plants tell their own story, and the demand continues. In a short time, prices come down, and the supply abundant and beyond demand, the dealer no longer thinks it worth while to give this room *expressly for the growth* of plants; the beds take care of themselves, hence bear but little, and the plants furnished are always weak and spindling. These require the second year to fruit; perhaps in the interim new kinds are pressed into notice, and frequently the other more and more difficult to obtain strong, until the cry is raised that the once celebrated strawberry has run its race. Now the question is, whether the same kinds under the same circumstances, that is strong runners from strong old plants, in good soil and plenty of room, will not continue to be productive.

ARCHED GATEWAY.

"In the Register for 1858, p. 29, is a representation of an arched gateway made of living trees. What trees are best for this purpose, and how is the arch made? C. C."

The engraver made the arch, figured in the Register, (and which we give above,) too irregular—there is no difficulty in making it symmetrical. When the trees are small, place a stake beside each, and secure it in several places, by straw, rush, or bass bands; the stakes should be as high as the perpendicular part or posts. Then fasten two curved poles to the upper end of these perpendicular posts, and secure them together in the middle, so as to form the proper arch; a single pole is best, if the right curve can be found, which is not difficult if the selection can be made in the woods. Tie the upper portions of the young trees along this curved part, so that they may meet in the centre; at this point inarch them, by cutting away a small portion of the bark, and tie them together with a rubber strap, that will give as they grow. (Such straps may be had in most dry good stores.) Keep all to their places a few years, and a perfect form will have been secured. If at any time they are apt to grow distorted, they are easily brought back while the trees are small. Unless a pretty stiff curved pole is placed across the top of the upright stakes, an additional stiffener will be needed in the form of a straight horizontal cross pole, to keep the uprights in position.

Any tree, having a tough hardy wood, will answer. Oak, if well trained, looks best for any large or massive gate, but it grows slowly, and on the other hand lasts long. Beech and birch both appear well. Elm is the most easily trained, as it has a natural form very similar to that of the sides of a gothic arch—the only objection is its massive and luxuriant foliage, almost concealing the form of its limbs, and its growing beyond bounds. It would do well for a high and spacious arch.

This kind of arch is very easily made—a few hours of labor in the aggregate will accomplish the whole; and it has a fine effect in any secluded place—in the rear of a dwelling, or the distant part of a garden; and for a small and rustic dwelling, it will do to place it near or in front.

Post and Rail Fence—Inquiry Answered.

"I observe in your notes on Cayuga County Farming, (p. 202,) you describe a post and rail fence, costing only 80 cents a rod, and having the advantages of a straight line possessed by a good board fence. You say the posts may be bored by hand on rainy days—will you tell me how this is done? A Reader."

The auger should be about two and a half inches. It should be set in the end of a wooden shaft, about three feet long. An iron band should be placed on this end of the shaft, so that the auger may be wedged firmly. A fly-wheel, to make the auger work with force, should be placed on the shaft—it may be a small wagon-wheel or a grindstone. On the other end of the shaft must be a stout crank or handle for turning it. The whole must be set on a suitable frame 2½ feet wide, that it may be turned like a grindstone. The grindstone or wheel must of course be well wedged on, so as to turn true. On one side suitable blockings must be made to hold the post; and on this side of the frame two or three notches or sockets should be made to receive the shank of the auger, so that the latter may be shifted to bore an oblong hole, without moving the post. The other end of the wooden shaft is rounded at the proper place to turn in the socket or notch on the other side of the frame. This rounded part should be as much longer than the thickness of the frame as the post is in thickness, so that the auger will move in cutting through. It is best to have the frame slightly inclined, so that the weight of auger, shaft and fly-wheel, will tend to drive it downwards through the post. One man holding the post, while the other turns the crank, the boring is rapidly performed. The men change work, as each one becomes fatigued.

In constructing this kind of fence, procure timber both for rails and posts, that has been cut and split in summer, and it will last much longer.

GAS TAR FOR POSTS.

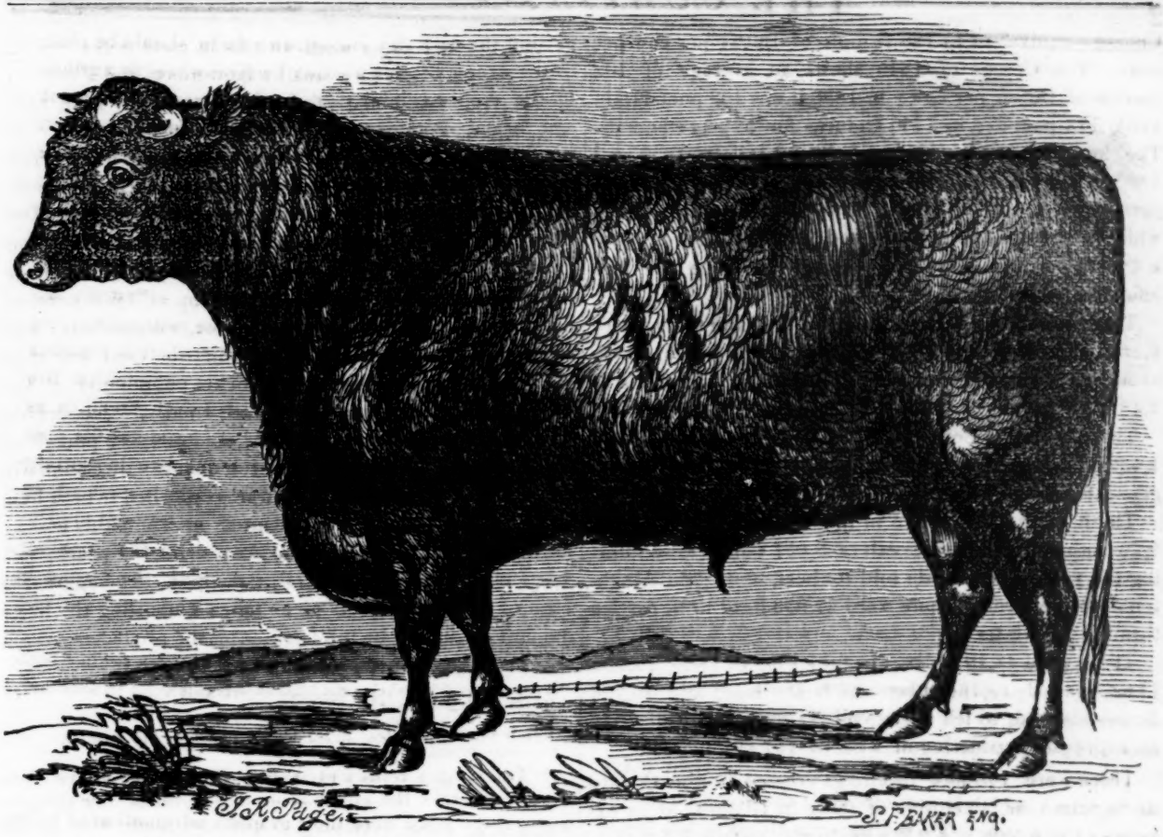
Eds. Co. Gent.—Hoping to elicit information of value to myself and the rest of your numerous readers, I venture to propound a few queries respecting *coal* or *gas tar*, which can be obtained here for one cent a gallon, and would therefore be within the reach of all, if it is available for paint.

1st. S. E. Todd, in the "Young Farmer's Manual," page 176, recommends a mixture of pitch and coal tar, applied hot to fence posts, for preserving them. How expensive is pitch? How much does it require? What is the mixture to be melted in, and how is the vessel used to be cleaned? What is it to be applied with? Whence the necessity of applying warm?

2d. In Webster's Family Cyclopœdia, section 234, it is stated that "gas tar, with yellow ochre, makes a very cheap and durable green paint for iron rails and coarse wood work." Have you ever seen this tried? Must it be applied warm?

3d. Is there no way of overcoming the unpleasant odor of gas tar by mixing it with some disinfectant? If so, how and what? Rubicolist. *Geneva, Oct.*, 1861.

We have never made the mixture of pitch with gas tar, and do not see the necessity of it. We have used gas tar alone, and have found it of great value. For example, a wooden trough on runners for receiving and drawing away the contents of a privy, entirely rotted in a year or two. Another well coated with gas tar was sound after ten years. The wood was thoroughly seasoned to open the pores, and successive coats of the tar, made as hot as was safe against taking fire, were applied. The object of heating is to reduce it to as liquid a state as practicable, that it may more freely enter the pores. We have no doubt that posts might be rendered extremely durable by first filling a large potash kettle with the tar, and after carefully heating it place the lower ends of the posts, after they have been very thoroughly seasoned, in it for a few hours each. We have not used the mixture of gas tar and ochre. Warming it would probable make it flow more easily. The bituminous odor cannot be neutralized by any practicable mode.



SHORT-HORN BULL "APRICOT'S GLOSTER"---2 YEARS OLD.

Apricot's Gloster, 2500—bred by S. P. Chapman, Clockville, Madison Co., N. Y., the property of GEORGE BUTTS and H. CASS, Manlius, Onondaga Co., N. Y. Red, calved Jan. 15, 1858—got by Duke of Gloster (11382)—dam, Apricot by 3d Duke of York (10166)—g. d. Anna, by 4th Duke of Northumberland (3649)—gr. g. d. Anna, by Short Tail, (2621)—gr. gr. g. d. Acomb, by Belvidere (1706)—gr. gr. gr. g. d. from the herd of Mr. Bates.

Agricultural Statistics in Tompkins County.

Much has been said of the interest and value of AGRICULTURAL STATISTICS. There could be few better illustrations of both, than can be found in a chapter contributed by our friend EZRA CORNELL, Esq., of Tompkins County, for the forthcoming volume of the State Ag. Society's Transactions, upon the Statistics of that County as gathered by him last year with the aid of several careful assistants. These statistics were alluded to by Mr. C. in his remarks during the third evening's Discussions at the late Watertown Fair, and since the publication of a sketch of the statements there made by him, (see page 233 of this vol. Co. GENT.,) we have been intending to refer to the subject more particularly. Among the results of his labors which were at that time mentioned, was the calculation he was thus enabled to make of the capital invested in farming in the County, and the interest it actually yields to the farmer under present systems of management. This would alone reward the efforts which the statistics had cost, because it proves the pecuniary return which may be anticipated in the pursuit of Agriculture in that particular district, and shows so conclusively that if the *average interest* obtained is 10 per cent. upon the capital invested, the best farmers must secure a still larger income from their money; and the encouragement to imitate their example is just so much the greater than if we had not the figures before us to prove what the average is, and therefore what is the basis from which improvement must start.

We are also shown that those who think the enumeration of Statistics is of no importance because "estimates" will answer every purpose, are very wide of the truth. Estimates of the crops of Tompkins were made beforehand by judges supposed to be well qualified for the task, and who were probably as well able to undertake it as any others would have been; the results prove that their calculations were very far from correctness—the estimated aggregate of the wheat crop of the county being put down by them at little more than three-fourths the real product—that of rye, at only one-sixth—that of barley, at about five-twelfths—that of hay, at about two-thirds; while oats were over-estimated by fully 70 per cent., and potatoes by 20 per cent., and out of the ten crops in which trial was made, Indian corn was the *only one* in which there was any approach to accuracy.

The following figures present the returns of the crops in Tompkins County in 1860, and the average per acre:

	Acres sown.	Crop in bushels.	Bush. pr acre.
Spring Wheat	9,449	134,069	14.2
Winter Wheat	7,336	111,455	15.0
Rye	3,900	55,604	14.2
Oats	27,651	1,030,016	37.2
Barley	4,605	116,491	25.3
Corn	14,035	530,282	37.7
Buckwheat	8,520	148,248	17.4
Peas	389	7,401	19.0
Beans	83	1,770	21.0
Potatoes	2,040	156,486	76.0
Turnips, Beets, Carrots,	98	15,590 / 3,137 / 20,030	395.0

There were 42,288 acres of Meadow, which averaged very nearly one and a half tons, producing 62,162 tons of Hay, *beside* 6,476 bushels of Grass-seed.

There were 14,810 Cows milked in the County, producing 1,849,145 pounds of Butter, and 100,082 pounds of

Cheese—equivalent to 128 pounds of Butter per cow per year. The Census of 1845 shows an average of 102 pounds of Butter per cow; in 1850 it was 109 pounds; in 1855, 113 pounds; in 1860 (returns for '59) 117 pounds. The increase of 11 pounds per cow between 1859 and 1860, is supposed to arise from the drouth and grasshoppers which prevailed in the former of these two years, while in 1860 pasturage was good; but the figures prove a gratifying increase steadily going on since the first enumeration in 1845.

There were 16,981 Hogs raised in the County in 1860, 6,157 sold alive, and 10,476 fattened and killed, which averaged 229 pounds per carcas, making an aggregate of 2,438,789 pounds of pork.

There were 806 Colts raised, 8,667 Horses on hand, and 1,132 sold at an average price of about $96, their aggregate sales amounting to $108,200.

There were 1,751 Oxen in the County, 15,346 Cows, 9,964 other Cattle besides calves, 5,637 Calves raised during the year, 3,080 Cattle sold for beef, and 1,765 slaughtered on the farm. There were 27,853 head to be carried through the winter.

There were 43,191 Sheep in the spring of 1860, 19,339 Lambs raised, 17,764 sheep and lambs sold, and 40,756 fleeces sheared, which averaged 3.14 pounds per fleece—an aggregate production of wool of 157,691 pounds.

There were 148 new dwellings erected in the County during the year, exclusive of those in villages, at an expense of $75,522, and 233 new barns, costing $53,793.

There were laid during the year 3,438 rods of Tile Drain, 36,341 of Stone Drain, 1,318 of Board Drain, 7,364 of open ditch, 5,918 of full stone wall and 7,031 of half wall. The above is equivalent to a total of 150 miles of drainage.

The County contains 204,935 acres of improved land, and 63,390 acres unimproved land, making a total of 268,325 acres.

The estimated cash value of farms in the County is $11,945,329; value farming implements and machinery $379,968; value live stock, $1,526,395, making a total of $13,851,692.

To the above figures it should be added that the season of 1860, in the language of the report, "as a whole may be regarded as a prosperous one, though our excess of rain in haying and harvest season interfered materially with the securing of crops in the best condition. Much hay was housed in bad order; some corn was injured by cribbing in a wet state or mould in the shock, and one-fourth of the crop of buckwheat was lost before it could be got dry enough to thrash." As to winter wheat, the damage from the midge did not probably exceed 5 per cent., and the crop of spring wheat was perhaps lessened 10 per cent. from the same cause. "Oats," says Mr. Cornell, "are esteemed by our farmers as a crop involving less risk from accident of season, or injury from the ravages of insects, than any other; and though it is regarded by most farmers as an exhausting crop to the soil, and an unfavorable crop to seed with, it is nevertheless a popular crop, and more acres are sown with oats than any other grain in our county." The season was as favorable as the average for Corn, which Mr. C. considers the "surest and most profitable grain crop" for the farmers of Tompkins; "the crop was very well grown, and generally placed in the shock before the killing frosts of the latter part of September. Much difficulty, however, was experienced in getting the corn dry enough to crib in good order, owing to the excess of wet weather in November, and a portion of the crop was injured through that cause." Like peas and beans, Potatoes and other roots are cultivated "in small parcels, scarcely an acre upon any one farm." The potatoes "are mainly planted to supply the farmer's family and the market demand of our village population, very few if any, being sent out of the county for a market, and much less than formerly are they used by the farmer for early feeding to his porkers. The crop of 1860 suffered more by rot than those of the year or two previous; our reports show that fully one-fourth of the crop was thus lost." Hungarian Grass and Millet are not popular. "Tobacco," Mr. C. remarks, with much energy, "has defiled 82 acres of the soil of our county, and 124,332 pounds of the filthy stuff is thus added to the quantity that annually contaminates the atmosphere we are compelled to breathe."

As to Fruit there were planted in Tompkins county during, 1860, 17,892 apple, 6,763 pear, 3,485 peach, and 4,705 cherry trees, and 3,594 grapevines. The aggregate crop of the county foots up as follows, omitting the large amount consumed by the families of the producers, which was not taken into the account in the report:

APPLES, 349,213 bushels, and 7,705 barrels cider.
PEACHES, 11,271 bushels, sold for $9,014.
PEARS, 2,664 bushels, sold for $2,087.
DRIED FRUITS, Apples, 13,282 bush.; Peaches, 848 bushels.
GRAPES—$3,922.

"The Grapes represented as sold for the above sum do not embrace the entire crop, as several of our citizens pressed the juice from their grapes and made wine to the extent of 7,000 gallons. Wine has been made from other fruits to a considerable extent, but we have no reliable statement of the amount. There are preparations making in the vicinity of Ithaca for extending the grape culture for the purpose of manufacturing wine, and if the enterprise is not checked by some unforeseen cause, wine will become an important feature in our future reports."

Among other remarks that may be made in conclusion, is the influence of Temperature upon the growth of Indian Corn. The greater the altitude of the town above the level of Cayuga Lake, and hence the lower degree of temperature, the less average bushels of corn per acre are produced—Ithaca, the town bordering the lake, showing an average of 46.7 bushels per acre, while Groton, with an average altitude of 1,000 feet above the lake, only produces 32.4 bushels—a difference of 14⅓ bushels per acre. The same fact is illustrated in the returns from other towns. The steady increase in the products of the Dairies, above alluded to, is thought to prove the adaptation of a Short-Horn cross for dairy purposes. The number of Sheep kept is about 50,000 less than ten years ago, and while fine-wooled sheep are thus diminishing in numbers, farmers "have discovered their interest in the coarser wooled varieties that supply early lambs and good carcases for market."

Mr. CORNELL undertook the collection of these statistics on the part of the Farmers' Club of which he is President, and both he and they are to be congratulated upon the success of the enterprise. He proposes to continue the same undertaking hereafter, until the Legislature makes provision, as it should have done years ago, for the annual procurement of such returns. Would that other Farmers' Clubs might imitate so excellent an example!

☞ We are indebted for copies of the excellent address delivered before the Agricultural Society of Adams, Rodman and Loraine, by Hon. EDWARD EVERETT, and noticed in the Co. GENT. at the time of its delivery—to the author, and to Gen. S. D. HUNGERFORD of Adams. We have marked several extracts for early publication.

SPREADING MANURE IN AUTUMN.

In the last No. of THE CULTIVATOR, you startle New England farmers by the advice of Mr. THOMAS to Cayuga Co. farmers, to spread their manure for spring planting in the fall. It is the general supposition with us, and practiced upon, that by so doing the best part of the manure will be washed away, but if put on just before planting, and then plowed and harrowed in, all the good of the manure will be retained. All the "theorists," from Dr. Silas Dane in his "Georgical Lexicon," (1790) to the most modern writers on agriculture, and their name is Legion, whose works I have read, assume that manures spread in the fall will be leached of their most valuable salts before the season for plowing in, and I do not know a farmer of my acquaintance in Massachusetts or Connecticut, who would not think it wasteful farming to spread manure in the fall on land to be plowed in the spring.

Perhaps I am all wrong and Mr. T. is right. I want to know the proper mode and hope Mr. T. will give us his reasons for the faith that is in him? R. GOODMAN.

There appear to be but two reasons why autumn manuring is better than spring, namely, 1st, it accords with experience, and 2dly, it agrees with theory. Perhaps the first reason will be sufficient—if so, we can only recommend our correspondent and his neighbors to give it a full and fair trial. The instances where it has proved best, most distinctly and strikingly so, are quite numerous. The theory is exceedingly simple. Manure is most efficacious when it is intimately diffused through the soil. If spread in lumps, left in lumps, and plowed in and allowed to remain in lumps, it cannot be worth half as much as when finely pulverized and well mixed. There is no doubt that the difference against spring application would be greatly lessened if the manure could be first finely broken; then very evenly spread; next, well mixed with the top soil by frequent harrowings; and lastly plowed in to a moderate depth. But an easier way to effect all this fine intermixture, is to spread in autumn. The soluble parts, including a large portion of all that is valuable, are dissolved by autumn and winter rains, and spring rains carry them into the top soil, diffusing them among the particles more minutely and more perfectly than by the finest pulverization. Very little is carried off, unless the manure has been thrown into the bottom of swales or into streams. Perhaps six to twelve inches of water falls by all these rains; yet very little runs off, without first soaking into, or passing into contact with the soil, which absorbs and retains all the rich parts. One of the best farmers in the country, who has given special attention to the subject, thinks that the manure which water holds in solution, will be all absorbed or strained out of it by flowing a very few rods over a surface of grass; and experiments have also shown that liquid manure filtering a foot or two through loam, runs off clear. There is no doubt, therefore, that so thin a stratum of water as usually falls in a shower of rain, would soon have all the rich parts it might get from surface manure quickly strained out and held fast by the soil over which it slowly finds its way.

SORGHUM MOLASSES.—At the Illinois State Fair, a discussion was held on the manufacture of Sorghum molasses. Prof. Turner considered its manufacture profitable, when common corn would not bring over thirty cents per bushel—above that price, raising corn was the most profitable. C. D. Bent, of Iowa, made 230 gallons from an acre; another cultivator made 94 gallons from the third of an acre. The poorer and drier soils bring the best juice. Skimming while boiling, is the only clarifying now adopted. There appears to be no difficulty in manufacturing sugar from the cane.

SCRAPS FROM THE HORTICULTURIST.

The last number of the Horticulturist contains some interesting facts, which we glean for our readers, and add some suggestions of our own:—

GRAPES.—The editor has received from Reading, Mass. specimens of the *Dracut Amber*, "said to ripen ten days before the Concord." It is described as having a large berry and small bunch; of a dark amber color, and "with a strong *native* aroma"—by which we are to understand that it has an intolerable foxy scent. The editor says, "it is too inferior for a table grape." He has also received, from other sources, various "native" seedlings, which he has "seriously thought of sending to Gen. Scott for army purposes, as the smell of them would scatter the rebels faster than the smell of gunpowder."

MAKING OUTLINES OF FRUIT.—A correspondent gives his mode, which is simply cutting the fruit through the middle, stem and all, and then placing the flat, newly cut surface on paper, and running the point of a lead pencil around the whole. The juice of the fruit will wet the sheet, and must be immediately absorbed by blotting-paper; then pass a fine point again over the outline, and secure it on a sheet of transfer paper. This mode may do very well; but we have long practiced an easier, more accurate, and more expeditious way. Cut the fruit, as before, through the middle, a little before it is fully ripe, and it will dry slightly in a few minutes so as to impart but little juice to the paper—the application of blotting-paper to the cut surface will also assist in removing the juice. Then with a pen and ink, lightly touch the edge, inking the stem rather heavily; press it well upon a sheet of soft, smooth, unsized paper, and a perfectly accurate impression will be made. The stem must be separately and hardly pressed. By using reddish brown ink for red and russet fruits, and greenish brown for green fruits, the effect will be fine. Any defects in the impression are easily corrected with a pencil or pen. A little practice will enable the operator to apply just such a quantity of ink as will give with a single impression a clear outside line, and a soft shade within.

STRAWBERRIES.—An article from A. S. FULLER of Brooklyn, contains among other statements, the following in relation to some of the newer sorts, founded on his experience:—

Wilson's Albany, the most productive—its very acid flavor becomes mild, if allowed to remain two or three days after it colors. *Triomphe de Gand*—the only foreign sort that gives general satisfaction. *Bartlett*,—hardy, good for field culture—bears crowding—fruit large, fine crimson, flavor moderate. *Hericart*—excellent, hardy, but poor bearer. *Trollope's Victoria*, large, handsome, tender, not productive. *Downer's Prolific*, "wonderfully productive," but wanting in quality. *Chorlton's*; seedling of Iowa, more prolific and larger, but no better in flavor. *Walker*, very rich, but neither large nor productive. *Hooker*, for flavor, at the head of the list, but quite tender and unproductive. *Wizard*, large, soft, acid, deficient in flavor. All these are staminates.

A MODEL APPLE TREE.—W. BACON of Richmond, Mass., furnishes a description of "the best specimen of an apple tree he ever saw." Its head is so near the ground that a person can without difficulty step into the lower branches, and these branches spread so low that the fruit can be gathered without difficulty by a person standing on the ground. They are long branches, and the top of the tree forms a symmetrical hemisphere. Neither the axe or the saw has been used in forming the head—the hand and the pruning-knife directed the first starting of the branches.

THE CULTIVATOR.

ALBANY, N. Y., DECEMBER, 1861.

TO THE AGENTS OF THE CULTIVATOR.

In presenting to the Public the Prospectuses of their Rural Publications for 1862, the Proprietors of THE COUNTRY GENTLEMAN and THE CULTIVATOR, desire to express the conviction that at no time during the whole history of our Country, have the existence and extension of

An Improved and Prosperous Agriculture,

Been of such momentous importance to the National welfare, as at the present Crisis of events. THIRTY YEARS AGO the Senior Editor of these Journals was led to undertake the publication of a FARMER'S PAPER, from the confident belief that the Amelioration of American Husbandry could only be brought about through the Co-operation of Farmers themselves—in other words, that an Agricultural Periodical made up of their *Practical Experience*, contributed in great part by their own pens, would afford the surest medium for the Diffusion of Information, the widest field in which Error, Prejudice and Deterioration could be encountered, the most trustworthy Guidance and Aid in reaching

More Thorough and More Profitable Systems of Farming.

Of the correctness of this belief, every year that has since elapsed, has supplied the most convincing evidence; and now that we are engaged in a War, which must eventually add to the consumption, and, to a certain degree, diminish the productiveness of the Country, while at the same time other Nations are eager purchasers of whatever grain and flour we can spare them, those who cultivate the Soil should welcome the more liberally and earnestly every means by which light can be thrown upon the manifold Operations and Interests of the Farm. EVERY READER is, therefore, solicited to

Exert his Influence.

In promoting the Circulation of this Journal, if not by active efforts to procure subscribers for it, at least by extending the knowledge of its character and design among his neighbors and friends.

☞ A sample copy of the ANNUAL REGISTER for 1862 will be sent out with this Number of the CULTIVATOR *to those from whom we have hitherto received Clubs, for use in canvassing for Subscribers the present Season.* Should any agent through miscarriage in the mail, or otherwise, fail to receive the ANNUAL REGISTER, we should be glad to be informed of the fact at once. We hope that no one who has in previous years, acted for us, will suffer his Club to go by default the present season.

Extra Copies to New Subscribers.

We have printed a large extra edition of the November and December numbers, and will supply them as long this edition holds out, to all subscribers *marked as* NEW *upon the Club lists.* Old subscribers will have received them already, but when any present subscriber wishes for a duplicate to circulate among his friends, or for other purposes, it will be forwarded with pleasure.

We desire also to ask for our Weekly Journal the attention of those for whom the Monthly visits of THE CULTIVATOR do not come with sufficient frequency:—

The Publishers claim that

The American "Country Gentleman"

Is the Tiller of the Soil who places before himself the highest standard, as regards the culture and fertility of his Fields, the necessities and comforts of his Buildings, the neatness and taste of the Homestead and its surroundings; who aims to accomplish everything he undertakes to the best of his capacity, and neglects no source of Improvement either for himself or in the management of his affairs: and this Title was consequently given to their Weekly Journal, with the determination to make it

The Organ of Our Best Farmers in Every Part of the Union.

They believe that a general demand now exists for a Periodical issued as frequently as once a week, the main objects of which are of a purely Practical kind; the Crops and Processes of general Husbandry, the Management and Breeds of Domestic Animals, the care of the Orchard and Garden, the Household Economy of the Farmer, and the general Progress of Agricultural Events—subordinate to which, and incidental to the chief purposes always held in view,—are also included appropriate miscellaneous reading, and a concise Record of Current Events.

Terms to Clubs.

THE COUNTRY GENTLEMAN AND ANNUAL REGISTER are furnished as follows:—Single copies of each $2.25; two copies, $4; four copies, $7; eight copies, $13, and any larger number at the same rate, which includes the Postage on the REGISTER. Where, however, the subscribers are already supplied with the REGISTER, or do not wish it, we will send the COUNTRY GENTLEMAN alone as follows:—Three copies for $5; five copies, $8; ten copies, $15. New volumes begin with July and January, each year, the 19th commencing with January 1, 1862.

☞ Subscribers in the British Provinces will each add twenty-six cents a year to the above terms, to cover United States Postage to the Canada lines.

THE COUNTRY GENTLEMAN IN A CULTIVATOR CLUB.—In making up Clubs, a subscription to the COUNTRY GENTLEMAN at $2 a year, will count the same as Four subscribers to THE CULTIVATOR, and the subscriber to the COUNTRY GENTLEMAN will receive one copy of the REGISTER. That is, Five Dollars will pay for one copy of the COUNTRY GENTLEMAN and six copies of THE CULTIVATOR, each subscriber receiving a copy of the REGISTER.

☞ Agents who wish the REGISTER to supply to every subscriber as fast as they take his name, can remit for them at the rate of Fifteen Dollars a hundred, (15 cents apiece,) and on completion of their lists, send the remaining 35 cents for each subscriber. This has proved an excellent plan; each subscriber, as soon as he pays his Fifty Cents, receives one-half his money back in a Twenty-five cent book, and the Agent has no farther trouble in the collection of the money.

THE REGISTER POSTAGE FREE.—We shall prepay the postage on all copies of the ANNUAL REGISTER without charge to the subscriber.

MEMBERS OF CLUBS may receive their papers at different Post Offices.

Address, LUTHER TUCKER & SON,
ALBANY, N. Y.

☞ It is with deep regret that we have to announce the Death, on the 16th inst., at his residence in Kinderhook, of Dr. JOHN P. BEEKMAN—always an active friend and advocate of agricultural improvement. Dr. B. was educated as a physician, and followed his profession at Kinderhook for a number of years, during which he was too close an observer not to regard with apprehension the constant deterioration of the soil in his neighborhood, arising from the bad system then pursued by most of the farmers, not only of his own vicinity, but to a great extent throughout the country. Seeing the necessity of a change in this respect, his earnest desire to assist in bringing it about, brought him into association with others who were also striving to draw public attention to the importance of diffusing information upon the subject of agricultural improvement among the farmers of the State. He not only labored with his pen, but he carried his zeal and strong common sense into the business of practical farming; and undoubtedly did more, both by precept and example, than any other one individual, to produce a revolution in the practice of agriculture, by which the farming of Columbia county was changed from an exhaustive and unprofitable, to a most productive and profitable system—a system by which the farmers, instead of annually becoming poorer, have been growing richer and richer for years past.

His efforts in the good cause were by no means confined, however, to his own County. He was one of the earliest movers in the establishment of a State Agricultural Society, and was associated with Judge BUEL in conducting THE CULTIVATOR when it was published as the organ of the Society. In 1837 and 1838 he filled the Presidency of that body, under its old Constitution; and, after its re-organization in 1841, he was again chosen to occupy this honorable and responsible position, in 1844, the year of the Poughkeepsie Fair. At the time of his death, Dr. B. had reached his 74th year, and, until comparatively a recent period, had been a constant attendant upon the Meetings and Exhibitions of the Society, ever ready to co-operate in extending its influence and increasing its means of usefulness. He had also filled several public offices of distinction, among others the Senatorship of the State; and "while his abilities," says the Argus, "have adorned the wider sphere of his public life, his virtues have endeared him in no ordinary degree to the private circle in which he moved, and his death will be sincerely mourned by the family and friends who loved and honored him in life."

A GOOD COW.—We exhibited a milch cow of native breed, at our State Fair, which gave 70 lbs. of milk per day for the first ten days in June, and 57 lbs. per day for the last ten days in August—the average amount of butter from the above milk, was 2½ lbs. per day. The statement is a large one for many people to believe. I would like to see published in your valuable journal, a statement of the record of the production of the best cows you have in your possession. H. G. ROOT. *Bennington, Vt.* [We have not time at present to collate and make up the record our correspondent desires, but may do it hereafter.]

☞ We have received the "Transactions of the Board of Agriculture of Upper Canada," in three volumes, for 1856, '57, '58 and '59, which we have examined with much interest. The extent of the very liberal support which Government there affords to Agricultural Societies, may not be generally known on this side the border. We find the following appropriations, as shown by the Reports of the Treasurer, R. L. DENISON, Esq.:—

1855, to County Societies, net amount,		$30,262.50
do. Provincial Society,	$3,362.50	
do.	4,000.00	
		7,362.50
Total grant to Ag. Societies, 1855,		$37,625.00

The amount appropriated by Government in 1856 was about the same, and in 1857 it was made $2,000 larger, by a grant of this amount to aid in the printing of the Society's Transactions. In 1858, the appropriation to County Societies was $48,483, of which the Provincial Society receives 10 per cent., or $4,848.30 beside its own grant of $4,000, being a total in that year

To Provincial Society,	$8,848.30
Net amount to County Societies,	43,634.70
Total grant to Ag. Societies, 1858,	$52,483.00

In 1859, we find the following items:—

Government Grant, (purpose not specified,)	$13,321.21
Annual Appropriation,	4,060.00
Ten per cent. on County Society Grant,	4,868.30
Total Government aid to Provincial Society,	$22,189.51
Net Grant to County Societies	43,814.70
	$66,004.21

It may not be a very good time to urge upon the attention of our authorities, the striking contrast between the sums appropriated for the advancement of Agriculture in the Province of Canada West and in the State of New-York, respectively, and yet we cannot forbear giving our neighbors the credit they deserve for having discerned that the great interest of their country is its Farming, and for having acted so liberally and judiciously upon that knowledge. Our main interest in New-York is also our Agriculture, and behold the munificence with which we aim to cherish and advance that interest:—

The State Agricultural Society receives annually,	$800.00
The County Societies the balance of, $8,000.	7,200.00
The Entomologist of the State Society,	1,000.00
	$9,000.00

and, in addition, the State prints our Transactions! We cannot find recent statistics for the purpose of placing side by side the population and extent of Canada West, compared with this State, but to go back as far as 1851, it is our impression that she had about two-thirds the surface of land under cultivation that we had, and not much more than one-third our population. She probably gives annually *three to four times as much money* for the benefit of her agriculture as we do, Transactions and all included.

It may be added that there were, in 1859, *sixty-one* County or Local Societies in Canada West, deriving benefit from the appropriations above mentioned—receiving from two or three hundred up to nearly seven hundred dollars each, per year.

☞ Our Foreign exchanges bring us the official statement of the imports of Breadstuffs into Great Britain for the first eight months of the present year, or up to Sept. 1st, showing that their total value must have been little short of *one-hundred millions of dollars*, against imports of about $35,000,000 in the corresponding period of 1860, and $40,000,000 in 1859. The figures with regard to wheat and flour, are:—

	Eight months ending August 31—		
	1859.	1860.	1861.
Wheat, bushels,	23,081,960	20,229,120	39,265,664
Flour, cwt.	2,741,257	2,463,092	5,030,281

The London Times gives the following interesting statement as to the proportions in which Great Britain has been a purchaser of breadstuffs in different countries:—

WHEAT—Percentage from,	1859.	1860.	1861.
Russia,	15½	19	12½
Prusia,	16	31	14
Denmark,	5	8	3½
Mecklenberg,	3½	5	2
Hanse Towns,	1½	3½	3½
France,	37½	5	3½
Turkey, Moldavia and Wallachia,	2	5	4
Egypt,	12	3	5½
United States,	—	15½	36½
Other countries,	7	5	15
Total,	100	100	100
FLOUR—Percentage from	1859.	1860.	1861.
Hanse Towns,	5	7½	4
France,	91	41½	9
United States,	1	36	61
Other countries,	3	15	26
Total,	100	100	100

"As regards Wheat it thus appears that the greatest fluctations occur in the imports respectively from France and the United States. In 1859 the position of the two countries as contributors to our wants was exactly opposite

to that which they now occupy. In 1859 France supplied more than a third of our whole requirements, while the amount from America was merely nominal. America has now supplied 36½ per cent. and France only 3½ per cent." In Flour, moreover, "the command of the trade has fluctuated chiefly between France and America, France having supplied in 1859 91 per cent, of our whole importations, and America only 1 per cent., while *this year America has sent us 61 per cent., and France only 9 per cent.*"

☞ The Commissioners recently appointed on the part of the United States to correspond with the Commissioners of the English Government, with regard to the Great International Exhibition, to be held at London, in 1862, met in Washington on Monday of last week. Telegraphic despatches inform us that Hon. Wm. H. Seward was chosen Chairman, and Mr. Kennedy Secretary. A Committee of five, Mr. B. P. Johnson of New York Chairman, was appointed to wait on the President to solicit the use of a Government vessel to transport the contributions of Americans to the Fair. An Executive Committee was appointed at a subsequent meeting, "consisting of B. P. Johnson, of N. Y., Chairman; J. C. G. Kennedy, W. W. Seaton of Washington; and James R. Partridge, of Md., the last named Secretary. It is their duty to make all necessary preparations for the exhibition. An office is to be established at Washington, and a description of all articles intended for exhibition, submitted to the Committee for their action. Inventors or other exhibitors can apply to any one of the Commissioners or Executive Committee."

☞ The Third Catalogue of the "Maryland Agricultural College" has been sent us. It shows a list of over one hundred students. As to the design which the Trustees and Faculty of this Institution have placed before themselves, we quote from their circular:—"It is not so much designed to teach the pupils to be farmers, as to make our farmers liberally educated gentlemen, with special reference to the sciences that bear immediately upon their profession; to indoctrinate the youth of Maryland in those arts and sciences, which, with good manners and morals, shall make them not only skillful in their profession, but ornaments to society, useful citizens, and an honor to the State. Thus, while the Student learns the various useful details of Agriculture and Horticulture, instruction in these is not at the expense of, but is merely superadded to moral and intellectual culture. The course of study, which is as extensive as that of any College, includes the Ancient and Modern Languages; the Mathematics and their applications; the Natural Sciences, with special reference to Agriculture, Moral and Intellectual Philosophy and Political Economy." Tuition, board, etc., $250 per annum.

We have also received the Catalogue of the "Michigan State Agricultural College." It shows the following summary of pupils:

Senior Class,	7	Freshman Class,	21
Junior Class,	9	Preparatory Class,	29
Total,			66

The Tuition here is free to all students from the State, and the board furnished at cost; room rent four dollars a year, and a matriculation fee of five dollars. "Students work on the Farm or in the Garden three hours a day, for which they receive adequate remuneration; the amount paid depending on their ability and fidelity. The wages for labor are applied on their board in the quarterly settlement of accounts." The object of the Institution is simply defined as being "to afford thorough instruction in Agriculture and the Natural Sciences connected therewith."

☞ At the Annual Meeting of the Orleans County Ag. Society, lately held at Albion, the following officers were elected: President—A. B. Bailey; Vice-President—Paul Pratt; Secretary—L. C. Paine; Treasurer—David Bettis.

Manuring for Corn in Autumn.—We noticed some time ago the excellent practice of J. Beatty & Sons, of Cayuga county, in applying the manure for their corn the previous autumn, to grass land, the sod to be inverted just before plowing. One of the best corn fields we have anywhere seen this year, is a field thus treated. It has since been husked and measured; the product is rather over *seventy-five bushels* of shelled corn per acre. Another portion of the same field was treated alike in every respect, with the exception of applying the manure in spring. The crop is much inferior to the other part.

Mowing Machines with Oxen.—An "Old Subscriber" in Middlesex Co., Mass., states that it is becoming common for farmers, who have a yoke of oxen and but one horse, to work their mowing machines with oxen. He says that the Buckeye mower has done well for this purpose. He inquires if the Wood machine would probably do as well. We are inclined to think it would; although possibly the Buckeye might run steadier without a rider, as might be necessary in driving oxen. Both machines are well adapted to passing obstructions, on which account our correspondent inquires; but of all the good new machines for this purpose, we have seen none to exceed the "Cayuga Chief," made at Auburn, N. Y., and which we have had an opportunity of testing in this respect. The best proof in such cases is experience, and those machines which actual trial show best adapted to the use of oxen must be chosen. The most reliable information therefore may be had of farmers who have used oxen for a length of time.

Leaves for Litter.—There are many parts of the country where grain is not extensively raised, and where straw for litter is scarce, but in which an abundant supply of forest leaves may be easily obtained, just before winter. They are often blown in great piles on the lee side of hills or fences, or into hollows, and a wagon may be loaded with them in a few minutes. If kept dry they make the warmest of all kinds of bedding, because the wind does not draw through them; and the manure is also excellent. The straw may be then cut up with hay, or mixed with meal for feed.

☞ We learn that Col. Joseph Juliand 2d, of Bainbridge, Chenango Co., whose improved stock has been more than once alluded to in our columns heretofore, has just sold the roan Short-Horn bull calf "*Daisy's Grand Duke*," got by "*Romelia's Grand Duke*," he by Thorne's "*2d Grand Duke*," &c., to Nelson Ireland, Esq., of West Bainbridge.

Hereford Sale.—The herd of Mr. John Hewer, of Vern Farm, Marden, of high standing among breeders of Herefords, was sold at auction on the 24th ult. Thirty-two cows and heifers fetched about 1000 guineas, averaging nearly 35*l*. Among them Nell Gwynne, a 3-year old heifer, fetched 71 guineas, and the calves of other two—Dinah and Gipsy Lass—viz., a heifer calf of the former, and bull calf of the latter, fetched 61 and 90 guineas respectively. Fifteen bulls and bull calves were sold for 810 guineas, or 52 guineas each, Abd-el Kader, a 3-year old bull, realizing 136 guineas.

☞ Dr. Wendell of Hazlewood Farm, near this city, has left us a fine sample of the Sweet French Turnip, the seed of which was sown the last of July, after a crop of garden peas had been taken off the ground. It has an unusual weight of top, as well as a good sized root, and if it realizes what has been claimed for it, for late-keeping in the spring, is a variety worthy of more attention. Dr. W. has also tried the varieties of the Potato originated and introduced by Mr. Goodrich of Utica, and reports very favorable upon the "Oneida Pink-Eye," particularly as regards productiveness, while for quality he thinks it fully equal to the Peach Blow. It is not at its best for for the table until the late winter or spring.

☞ The Annual Register of Rural Affairs for 1862, which has been for some weeks advertised in our columns, will be ready to send out early next week. The general character of its contents and the extent to which it is illustrated, will appear from the Advertisement alluded to; and we may add that in both respects, it is at least equal in value and interest to any number that has preceded it.

The low price at which it is sent by mail *per dozen*, is such as to remunerate any one quite liberally for the sale of this quantity, and we know of no way in which so much useful reading, accompanied by so many engravings, can be had by the farmer for *Twenty-five Cents*, as by the purchase of a single copy.

Any or all of the seven previous numbers of the Annual Register may at any time be procured. Those enclosing a remittance will be particular *to mention the year required*, as mistakes frequently occur from orders naming the wrong year—it is the number for **1862**, it will be

Price of the Annual Register for 1862.

Single Copy, post paid,		25 cents.
Five Copies,	do.	$1.00
One Dozen,	do.	2.00
One Hundred, per Express,		15.00
Complete Sets, Eight Nos., post paid,		1.60
Two Complete Sets,	do.	3.00
Three do.	do.	4.00

☞ The Report for 1860, of the Commissioner of Statistics of the State of Minnesota, lately issued, shows the average yield of wheat per acre in that State last year, to have been 22.05 bushels; of rye, 21.56; barley, 33.23; oats, 42.39; buckwheat, 15.73; Indian corn, 35.67, and potatoes, 138 bushels. Syrup was manufactured from the sorghum or "Chinese sugar-cane," to the extent of 9,859 gallons.

[For the Country Gentleman and Cultivator.]

"OUR COW."

We bought her nine years ago last June, for twenty-five dollars, nobody pretending that she was any "great scratch," she being poor and always having been poor, and not given a great amount of milk. Her first season with us she didn't exceed our expectations, though she gave us all the *milk* we wanted for family use, buying our butter of course. She however gained flesh somewhat, and by another spring she looked quite decently, and in due season dropped a calf, and gave a good mess of good milk. She was then seven years old, and continued to improve for five years, then for two years about alike, and the last year has diminished in quantity of milk about an eighth part. She "came in" last in April, and now (Oct. 29) gives twelve quarts per day, without any messing. For the last eight years she has supplied our family of 8 members old and young, with all the milk, cream and butter we wanted, except a part of one year, which by accident she went farrow, and we bought butter. We have sold butter and milk enough to pay for what we have had to buy during her annual recess from giving milk, of four weeks. We have not known just how much butter she would make in a week, as we have to use a large part of her milk and cream each day; but by weighing her milk one week we found it averaged a little less than forty-four pounds daily. She has laid in the pasture day and night through the summer; in the winter is stabled and has a small lock of hay at 6 in the morning; at 8 a bushel of cut corn-stalks mixed with a peck of cleaned and cut carrots in hot water; at 12 a small lock of hay; at 6 P. M. another bushel of cut stalks, mixed with two quarts of meal. She is milked near 6 o'clock, morning and night, through the year. She claims no "*blood*"—never has been sick a day, nor broken out of her enclosure, nor put her foot in the pail, and apparently eats as well as ever, and is now with calf.

RANDOLPH.

DOES NATURE MAKE SUCH MISTAKES?

Sowing Oats and Reaping Barley.—Two or three years ago I grew barley from oats, and have a friend in Hunts who has several times done the same thing, and with great success. The plan of procedure is as follows. The oats are sown in February, and are cut down during the ensuing summer to within two or three inches of the ground; the next year they come up barley. If any of your correspondents can offer an explanation of the above curious fact, they will much oblige—C. J., jun. [We must beg to express our dissent from this statement. The explanation is that the oats being annual, die on being cut. The seed of barley had remained in the ground without vegetating until the second or third year after being sown. This supposed phenomenon was recorded, discussed and fully explained in Loudon's "Magazine of Natural History" many years back.—Ed.]

We cut the above from the London *Field*. It calls to mind a story told us some years since by a sea captain who had retired from the service and turned farmer. He had amassed a handsome fortune, which enabled him to purchase and stock a farm in Massachusetts to his entire satisfaction. Being at Syracuse one autumn, his attention was called by a friend to a very fine sample of barley, with which he was so well pleased that he determined to try its cultivation, and accordingly ordered a quantity for seed. It was duly received and stored in his barn through the winter. In the spring he had the ground for the barley prepared in the best manner, and the seed sown. It grew finely; but to his great astonishment, on ripening, there was not a head of barley to be found in the whole field—the entire crop had *changed to oats;* of which he had a beautiful crop. "Here was proof-positive of transmutation, about which there could be no mistake." But we had little difficulty, after a few questions about the laborers he employed, and the management of his farm, in solving the difficulty. *His Irishman had undoubtedly fed out the seed-barley, and sown instead of it the oats which he ought to have given to the horses!*

[For the Country Gentleman and Cultivator.]

Preparing Bone Dust---Good Crop of Corn.

Editors Country Gentleman—Inclosed you will find a sample of bone softened with ley. If you will try it with a knife or finger nail you will find that it crumbles readily and could be easily crushed to a tolerably fine powder. I have used bones six years in succession for corn; five of the six crops were good. My best crop was last year. I applied the bones to that crop in the following manner: the ground (two and one-half acres) was plowed in August six inches deep. In September six barrels of bones were softened* and crushed tolerably fine; the bones were then mixed with twelve barrels of wood ashes. After two days the ashes and bones and four barrels of night soil were thoroughly mixed with about two cords of pond mud; the heaps heated finely and except a little around the edges did not freeze all winter. In April this was applied to the hill before planting, about a quart to a hill; the corn covered half an inch and hoed twice; the product was seventy-eight bushels of shelled corn per acre. No other manure was applied.

The land was planted to corn as early as 1630, and has been planted to corn about once in ten years ever since, and it is doubtful if twenty-five bushels per acre was ever raised upon it before.

Edward Willis.

Massachusetts, Nov. 4, 1861.

* Will our correspondent favor us with the exact details of his process of "softening" with ley? From the sample sent, we judge the result to be precisely what is now so often inquired for—a practicable and inexpensive method of preparing bones for use. Eds. Co. Gent

CELLARS.

Farmers will soon fill up their cellars with fruit and vegetables, to remain during a part or the whole of the winter. These apartments should therefore be first put in perfect order before receiving their supplies.

We visited, some time ago, the residence of a friend who had given as much attention to the finishing and arranging of his cellar as to that of any other part of his house. It was more worthy of a visit than the finest drawing rooms with rosewood furniture and Wilton carpets. In the first place, the walls were built in the smoothest and most substantial manner; the floors were covered with the best water-lime cement, now as hard as flagging, and as smooth as planed boards; the cellar was divided into apartments, one for vegetables, another for fruit, another still for provisions, a fourth for the dairy, and a fifth for coal and furnace—for the cellar extended under the whole house, kitchen and all. In the vegetable apartment bins were made in the middle, so as to have a passage around them, and in these bins the vegetables were placed, some with only a cover, and others packed in sand, or in moss. Nearly dry and fine moss was preferred to anything else for packing beets, turnips, parsnips and cabbages. The bins were not made of rough boards, as generally seen, but were planed and painted, and the whole presented the neatest appearance. The fruit shelves were, in a similar manner, made of planed and painted material, with a passage all around them, both for ventilation and to allow the attendant to assort them frequently.

The partitions between the different apartments were brick walls, and each one was easily accessible, both from the outside large door and from the kitchen.

How much better is such a cellar as this, than those too frequently met with, low, damp and unpleasant, with a pile of dirty potatoes in one corner, a bin of half broken boards in another, partly filled with half rotten apples; a few scattered cabbage heads lying on the wet earth; and a general medley occupying the rest of the space.

TOP-DRESSING GRASS.

The practice of top-dressing grass lands in autumn is becoming properly appreciated by good farmers, the advantage being two-fold; first, the mechanical protection from exposure to winds and cold; and secondly, the enriching effects of the liquid manure carried down by rains among the roots of the grass. There is one kind of grass crop to which this treatment is especially valuable,—namely, newly seeded fields. The protection afforded by a thin coat of manure to the young plants of grass and clover, and the impetus given to their growth by the enriching effects seem greater and to pay better in this instance, than in any other case of top-dressing. Farmers may try the experiment, and having tried it, they will be likely to repeat it. It succeeds remarkably well on heavy and strong soils.

The McCormick Reaper.—The Commissioner of Patents has decided against McCormick's application for the extension of his reaper patent of 1847, on the following grounds:

First: That the invention is one of great utility and importance to the public.

Second: That the sums already received by McCormick, and the sums he is entitled to recover from infringements, together, amount to an adequate remuneration, and, therefore, the patent should not be extended.

[For the Country Gentleman and Cultivator.]

HOW TO MAKE GOOD CIDER.

Messrs. Luther Tucker & Son—As I have been highly pleased with the information of Mrs. Kendall in the Domestic Department of your journal, I wrote Mr. Levesque to send me a good recipe, how to make good cider Here it is:

After the apples are crushed, press out the juice, put in a clean cask and leave out the bung. It will work without anything being put in; in four or five days, draw off, and put into another clean cask. Do this 3 or 4 times, allowing as many days between each changing. It does not work well in cloudy weather, and so must be left longer. If it does not fine well, it will not keep sweet. To assist the fineing, dissolve 6 ounces of gelantine for each hogshead and mix; do this previous to the last change of cask.

The quality of cider depends on the sort of apples used. Two parts sour apples and one part sweet, will make good cider.

Now observe, let there be no time lost in the whole process, but allow sufficient time to do it well. It is the particles of pulp left in the cider, that causes it to turn sour. To effect the proper clarifying and working, it will require four changes of cask, that is if you want first rate cider. Do not put any water in any part of the process—have all juice.

After the last change, the cider may remain in the cask, bunged up 2 or 3 months. You can then bottle off—lay the bottles down in a cold dark cellar—some will burst, but then you must put up with it. It will be fit to use during the summer, when all parts of the work have been well done The bottled cider will be equal to champagne, and will keep sweet. Some put brandy, rum, gin or other spirits in—it does not preserve it, but only makes it intoxicating.

If you can get Pine Apples *very cheap*, two or three crushed up to each hogshead of juice, will be a great improvement. If you keep the cider in casks, be sure that they are sound and air tight and very clean. Wash out with cold water, then scald out your cask—fumigate with rag or sulphur—melt the sulphur and then dip the rag in; a piece about one foot square will be sufficient for a hogshead—light the rag and then put it in the hogshead—leave out the spile peg only. This will destroy all must or mildew or any other bad taste in the cask.

Thousands of pipes are exported from this island annually.

JAMES LEVESQUE.

Grassdale Lodge, Island of Jersey, England.

MAKING A PLEASANT HOME.

"Rural Affairs" and the Annual Register.—One of the many things that all can do, is to beautify and adorn their dwellings, and all around them; and to aid them in this department of the many-sided and multiform work of making a pleasant home, they will find some valuable suggestions in the article of Judge F. now under notice. And if they should wish to receive still more assistance in the work of laying out their front-yards, and the grounds surrounding their residences, in good shape and graceful form, I know of no advice that could be given to such, better than that which the Editor of this journal gave to an inquirer for assistance of this kind, in the December number of last year, which was this: "Send to Luther Tucker & Son, Albany, N. Y., for a volume of their *Illustrated Rural Register*, in which you will find just what you want." The same may be said to all who are seeking assistance in laying out their grounds, in seeding and planting their front-yards or lawns, and in beautifying and adorning their premises generally. They will find in the two volumes referred to, (the proper title of which is *Rural Affairs*, and the price of which is $1 per volume, post-paid,) just what they want or need, and more than they will find in any other volume of as little cost. We doubt not that those who have already adopted, or who may yet adopt the advice of our Editor as to sending for the book, will feel inclined, or at least have good occasion, when they see the new forms of beauty which their grounds have assumed or may be made to assume, to thank him in their hearts for that one little piece of information or advice.—*Correspondent New-England Farmer, Boston.*

Inquiries and Answers.

DEODORIZING NIGHT-SOIL.—I desire to take the night-soil from a vault 15 feet deep and 20 feet square, which is nearly full, for removal to land one mile distant; the handling of it, owing to the disagreeable smell, would be expensive. Is there any cheap way by which it could be deodorized, to enable me to remove it without so much extra expense? I have seen *muriatic acid* recommended—is it practicable and cheap? If so, what proportion should be used? A SUBSCRIBER. *Cannelton, Ind.* [The best way of treating night-soil is to destroy the smell before it is taken from the vault, by repeatedly adding some absorbent while it accumulates. Coal ashes is most convenient where coal is used for fuel, simply because it is *very dry*, and in the form of powder. Very dry loam in powder would be as good or better. Powdered charcoal perhaps still better. But as this preparation cannot now be made in the present instance (unless by adding large quantities to the upper surface and then removing successive layers, which would be slow and tedious,) the next best course is to remove it and make it into a compost heap as near at hand as convenient or practicable. Make successive layers of the deposits and of coal ashes, dry loam, dry peat, or powdered charcoal,—the thinner each layer the better,—and after remaining a few weeks, it may be drawn to the field without difficulty or inconvenience. There should be enough of the absorbent to render the heap so dry as to separate readily in spreading, and to retain all the bad odor. If the absorbent is very dry, much less of it will be required—probably if one and a half or two parts, to one part of the night-soil, would be abundant under favorable circumstances. If sawdust could be burned to charcoal, it would doubtless form an excellent material for the purpose. Burnt clay, kept dry, is one of the best preparations. Muriatic acid would be too costly.]

THINNING-OUT AND REPLANTING.—I intend to build during the coming season; the site is at present covered with forest—would you advise to clear the land entirely, and then *set out* young trees for shade and ornament, or leave the present growth and trim it? It appears to me, as the trees are so tall, that nothing can be done with them. J. A. H. *Albert Co., New-Brunswick.* [If there are any good small trees, leave these, and cut down the large bare-timber trees. They will thicken in stem and foliage in a few years, and form a useful help to the artificial plantings. The several years required for young newly set trees to furnish shade, induce planters of new places to secure if practicable at least something from the native growth. One of the finest plantations of trees we ever saw was obtained by selling for wood all the trees beyond a certain diameter, (a few inches,) and the small ones thus left had grown and developed themselves for a number of years. If there is no small growth whatever, (which would be a very unusual thing,) perhaps a rapid young growth might be obtained by cutting the stumps closely to the ground, and allowing the young shoots or suckers to spring up, to be judiciously thinned out as required. Whatever course is pursued, it should not be forgotten that young or newly transplanted trees will grow many times faster by keeping the soil mellow and cultivated, while suckers from the stumps of old trees will often outgrow every thing else.]

MANURING ORCHARDS.—I have 80 acres of apple orchard nineteen years old, containing 2,800 trees, of which there are 1,100 Newtown pippin. I wish you would inform me what is the best manure to put on my trees to make them bear, as my Newtowns do not bear. Any information will be thankfully received. BARNEY REYBOLD. *Delaware.* [If the trees are unproductive simply because they are unthrifty in growth, the application of yard or stable manure, with a portion of ashes, (or in the absence of ashes, of lime,) will probably be the best thing. The application should be made in autumn, that the soil may be soaked in winter and spring. If only top-dressed, the autumn application is of great importance. If plowed in, it is done most advantageously in spring, after the manure has remained all winter on the surface. It sometimes happens that ashes or lime alone will restore the productiveness. A good deal depends on the character and condition of the soil, which can be determined only by experiment. As a general rule however, common manure, with one-tenth to one-twentieth ashes or lime, will be useful in nearly all cases.]

ENLARGED HOOFS.—During the last eight months I have been stall feeding, (soiling) a cow, and so far am well satisfied with the experiment. During that time she has been turned out to run in the yard about three hours each day—but I find now that her hoofs have grown so much that she stands almost upon her heels. Many of your readers, doubtless, have experience in this matter, and I should like to ask if the hoof will bear paring down as freely as that of the horse; and if so, in what manner, and how often should it be done. COUNTRY. *Middlesex Co., N. J.*

TIMOTHY HEAD IN LEAF.—Herein you will find a head of timothy which looks as though each seed had sprouted and grown a short distance, but I cannot, on close inspection, find it so. It is something new to me—is it to you? BYRON. *Springwater, N. Y.* [This is not an uncommon appearance, and it is commonly and erroneously attributed to the sprouting of the ripe seed by wet weather. It is simply a monstrosity; the *paleæ*, corol, or inner chaff of the head being partially converted to small leaves, in the same way that stamens in the water lily are converted to petals in forming double flowers, as shown in the article on Vegetable Physiology in the Illustrated Annual Register for 1862, p. 158.]

A BLIND COW—AIKEN'S HARROW.—I have a cow blind—she has been so about a week—eyes are swollen and watery discharges at the nose—disease appears to be in the head. What treatment would you recommend? And would also like to inquire if any of your subscribers have used Aiken's Patent Harrow, if so what was the result? J. B. P. [The disease may possibly be a severe case of opthalmia. If so, and there is some fever, give a dose of glauber's salts from a bottle in the usual way, say three-fourths of a pound dissolved in water. Cold water is perhaps the best local application. If the inflammation is acute, the application of a cloth wet in laudanum and water, (10 or 20 parts of water to one of laudanum,) will alleviate the symptoms. At a later stage, tannin water is a good wash. We are not acquainted with Aiken's Harrow.]

COLLAR LUMPS.—Please tell me in the CULTIVATOR how to remove "collar lumps" from the breasts and neck of horses. They are very sore and troublesome to the animal afflicted with them. E. K. [We have had no experience in such cases, but would suggest as the first thing, to avoid using the horse, or in providing a Dutch collar, so as not to chafe the injured parts; and to wash frequently, and perhaps bandage with cold water, or salt and water.]

CRANBERRY CULTIVATION.—I am very anxious to know all about cranberry cultivation. Where can I get the information? J R. B. [In Eastwood's "Manual for the Cultivation of the Cranberry"—which we can send you by mail, postpaid, for 60 cents.]

SHADE TREES.—My house sets back about 300 feet from the main road. The carriage road leading to the house is lined each side with trees, first a deciduous then an evergreen—each side of the gate is a willow, but it is so dry one is dead and the other dying. What trees would you recommend to put in their places? The main road is bordered with maples. SUBSCRIBER. [Oaks, if the soil is dry enough, would be the finest, but they grow too slow, probably, for our correspondent's purpose. The black maple is a very fine tree. The most rapidly growing, and a really beautiful, and becoming a magnificent tree, is the *silver poplar*. The only objection is its profuse suckering. Perhaps this would be but little detriment in this case—or if so, a few successive and thorough grubbings of the suckers prevent their re appearance.]

PLOWING GREEN SWARD.—Which is the best time to plow green sward for corn, in the fall or spring? YOUNG FARMER. *Otsego Co.* [Spring is generally preferred, and as short a time before the planting, as convenient; because if plowed in fall or early in spring, the grass finds its way to the surface and increases the labor of cultivation. Excellent corn is obtained by spreading the manure on the grass or clover in autumn, to leach all winter, and plowing to a moderate depth in spring and planting. If plowed in autumn, the manure should in like manner be spread in autumn, *on the top of the inverted sod*, and Shares' harrow, or a similar implement, to reduce the surface to fine tilth, will be nearly indispensable in the spring. This mode we have also found to bring good crops.]

CEMENT FOR CAST IRON.—Will you give me a receipt through your valuable paper, for filling a crack in a large cast-iron kettle. S. B. C. [A mixture of iron filings with sal ammonica, made into a paste with water, will harden so as to bo nearly equal to the iron itself.]

SOILING CATTLE—INFORMATION WANTED. — You would confer a favor upon me, and I presume to other subscribers, if you could refer us to some work on the soiling of stock—some work that would give us practical directions as to the proper crops and their rotation. Or what would be still better, if you could induce Mr. Josiah Quincy to give us the result of his experience and manner of procedure. What are

his earliest crops? and also if as much and as good a quality of butter and cheese can be made by soiling, as by pasturing the cows upon the natural grasses of our upland pastures? Also please inform me which in your opinion is the most exhausting to the soil, a crop of Marrowfat beans or of potatoes, say of the Peachblow variety? YOUNG SUBSCRIBER. *Pittstown, Oct.* 14, 1861. [We know of no work on soiling adapted to this country, and founded on extensive experience. Information of this character, would be acceptable to us, and doubtless to many of our readers. Mr. Quincy's experience is given in his Work on Soiling, which may be had at this office, post paid, for 75 cents. For most courses in farming, potatoes are the most exhausting.]

HEDGES.—Which is the most suitable hedge for enclosing a farm-yard, as regards durability of plants, beauty, &c.? Some say the Osage Orange, others Barberry plants, &c. Will some friend inform me through THE CULTIVATOR, the proper kind, where the plants or seed can be procured, price, time and manner of planting, pruning, after treatment, &c.; they would, with yourselves, confer a lasting favor on a friend and subscriber. C. E. BOARDMAN. *Cairo, Greene Co., N. Y.* [If the Norway Spruce should be preferred,—and it would no doubt make a fine hedge and screen combined, in a few years,—it may be had of any prominent nurserymen—and very cheaply at the present time from the nurseries at Rochester. If the Osage Orange should be selected, the plants may be procured of the Illinois nurserymen at a low rate. The Osage should be planted on well drained land to insure hardiness; and to make the hedge even and without gaps, let the buds swell before setting out in spring when only vigorous, starting plants are to be selected. They must be planted where a strip of land five feet wide on each side may be cultivated well and clean for several years, or the hedge will be unsuccessful. Buckthorn is hardier, and more uniform in growth, but it requires very rich soil to grow strong enough. For further particulars, see the article with engravings, in the Illustrated Register for 1860, containing full instructions on pruning, &c.]

BEE BOOK.—Will you be so kind as to inform me through THE CULTIVATOR, as to a good book upon Bees—its price, and where it can be obtained; and also the best Bee-hive, with the plan of its construction—unless it is under a patent, if so, its price. N. O MORSE. *Jewett, N. Y.* [Quinby's Mysteries of Bee-keeping Explained—which we can send you post-paid for $1—is probably the best book for new beginners, and it will afford you all necessary information about bee-hives.]

SULPHITE OF LIME FOR THE PRESERVATION OF CIDER.

Sent by Express anywhere. Price 50 cents.
Nov. 21—w&m1t. WEBB & WALKER, Utica, N. Y.

CRESTED HAMBURGH FOWLS.

A few choice birds of the Golden Spangled Crested Hamburgh variety, may be had by applying to C. N. BEMENT,
Nov. 21—w&m1t. 66 East 29th Street, New-York.

IMPORTED LEICESTER RAM FOR SALE.

The subscriber offers for sale the splendid imported thorough-bred ram "NEPTUNE." He has won first prizes wherever he competed and is probably

THE MOST PERFECT SHEEP

ever brought to this country. He was imported by the subscriber from one of the best flocks in England. Having used him two seasons he cannot put him to his flock again. He has an excellent constitution, and is a first-rate stock getter. He is 4 years old—weight, 260 lbs—clip this year, 16 lbs.—price, $200. ALEX. SOMERVILLE,
Nov. 21—w&m1t. Lower Lachine, Montreal, Canada East.

PURE CHESTER COUNTY PIGS FOR SALE.

Also three or four nice young sows, shipped to order by
Oct. 31—w2tm1t. M. S. KELLOGG, Chicopee, Mass.

ANDRE LEROY'S NURSERIES, At Angers, France,

The proprietor of these Nurseries, the most extensive in the world, has the honor to inform his numerous friends, and the public, that his CATALOGUE OF FRUIT AND ORNAMENTAL TREES, SHRUBS, ROSES, SEEDLINGS, FRUIT STOCKS, &c., for the present season is now ready, and at their disposal. Apply to

BRUGUIERE & THEBAUD,
51 Cedar-Street, New-York.
Oct. 17—w1am3tm3t.

CHOICE POULTRY FOR SALE.

WHITE LEGGED DERBY GAME FOWLS, bred from stock obtained a few years since at Knowsby, England.

STREAKED-BREASTED BLACK-RED GAME FOWLS, bred chiefly from stock obtained of the late Lord Berwick in 1859.

TOULOUSE GEESE, bred from stock imported from France by A. W. Austin, Esq. These are considered in Europe the largest of all geese, and are much esteemed by epicures for the excellence of their flesh.

Price of the Game Fowls, $5 per pair; of the Geese, $12 per pair. All the stock is of the best quality. SANFORD HOWARD,
Nov. 14—w3tm2t. Office of the Boston Cultivator, Boston, Mass.

SHORT-HORNS AND BERKSHIRE SWINE. FOR SALE.

A few COWS and HEIFERS, one aged BULL, and three or four BULL CALVES.

A yearling BOAR HOG, several SOWS and PAIRS OF PIGS two months old.

Prices in keeping with the times, and delivered in New-York, on rail car or ship board, free of charge.

Apply to L. G. MORRIS,
Herdsdale Farms, Scarsdale, P. O., Westchester Co., N. Y.
July 4—w&mtf.

RHUBARB ROOTS.—MYATT'S LINNÆUS RHUBARB.

superior quality. Price per thousand, $30; per hundred, $4.
GEORGE R. UNDERHILL,
Oct. 24—w4tm1t.* Locust Valley, Queens Co., N. Y.

THOS. WOOD continues to ship to any part of the Union, his celebrated PREMIUM CHESTER CO. WHITE HOGS, in pairs not akin, at reasonable terms. Address,
Jan. 10—w&mly. PENNINGTONVILLE, Chester Co., Pa.

MOHAWK RIVER UPLAND FARM FOR SALE.

The farm owned and occupied by the subscriber, situated one and a half miles west of the village of Amsterdam, and containing 138 acres of land, 20 acres being in wood, and the balance under a good state of cultivation. Said farm is beautifully located, and commands a view of the Mohawk River and Valley, Erie Canal, and New-York Central Railroad, that cannot be surpassed. The soil is a gravelly loam, and well adapted to all kinds of grain or grazing; the fences are good, (mostly stone,) and so arranged that stock has free access to water at all times. The orchard and garden contains a large variety of choice grafted fruit, consisting of Apples, Pears, Plums, Cherries, Currants, Gooseberries, Strawberries, Grapes, &c. The buildings are nearly new, the house and principal barn having been built within the last ten years. The house is stone and built expressly for a CONVENIENT, COMFORTABLE FARM HOUSE; the main barn is 64 by 32 feet, with 20 foot posts, and basement 10 feet high; it has other barns and sheds adjoining, sufficient to accommodate a large stock. There is also on the premises a small tenant house, nearly new and in good repair. The above farm will be sold on liberal terms, and possession given the first of April next; or if purchaser desires, can buy stock, farming utensils, &c., and have possession immediately. For further particulars inquire on the premises or by mail, of

JOHN M. VANDEVEER,
June 27—w&mtf. Amsterdam, N. Y.

STEEL PLOWS

We are now manufacturing a superior **Steel Plow**, intended for general use. Some of the advantages it possesses over the cast iron plow, are lightness of draught, durability, and freedom from clogging or sticking in heavy, clayey sticky or tenacious soils. The parts most exposed to wear are so constructed that they may be readily repaired by any blacksmith.

We would refer to the following persons who have them in use: John Johnston, Geneva, N. Y.; Wm. Sumner, Pomaria, S. C.; R. C. Ellis, Lyons, N. Y.; Col. A. J. Sumner, Long Swamp, Florida; A. J. Bowman, Utica, N. Y.; A. Bradley, Mankato, Minnesota; A. L. Fish, Litchfield, N. Y.; Volney Owen, Union, Ill.; John Slighter, French Creek, N. Y.

"Mohawk Valley Clipper," No. 1, full trimmed, all steel,.. $15.00
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For Three-Horse Plows,..... $1.50 extra.
For Adjustable Beams, ... 1.00 do.

We also manufacture Sayre & Klink's Patent Tubular Shank

STEEL CULTIVATOR TEETH.

These Teeth are intended to supersede the old style of wedge teeth and teeth with cast iron heads. They are not liable to become LOOSE in the frame, like the FORMER, nor to BREAK, like the LATTER. They are as readily attached to the frame as any form of tooth.

SAYRES' PATENT HORSE HOE.

This implement is considered to be superior to any other for cultivating Corn, Cotton, Tobacco, Potatoes, Hops, Broom Corn, Nurseries, and all crops planted in rows or drills.

Steel Shovel Blades and Cultivator Points made, and all kinds of Swaging and Plow work done to order.

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E. REMINGTON & SONS, BENJAMIN P. MARKHAM, GEO. TUCKERMAN. } REMINGTONS, MARKHAM & CO., Ilion, Herkimer Co., N. Y
March 21—w&mtf.

THE ILLUSTRATED
ANNUAL REGISTER OF RURAL AFFAIRS
FOR 1862.

THE EIGHTH NUMBER, for 1862, of THE ILLUSTRATED ANNUAL REGISTER OF RURAL AFFAIRS has now been issued from the press. In the attractiveness and value of its contents we do not think it has been surpassed by any preceding number. We submit below a partial abstract of its contents, which will show their variety and the extent to which they are illustrated—the present number of the ANNUAL REGISTER containing more than

ONE HUNDRED AND SIXTY ENGRAVINGS.

The ANNUAL REGISTER for 1862 will be ready early in September, and we are now prepared to receive orders for single numbers or in quantity, which will be filled as soon as it is issued. The attention of OFFICERS OF AGRICULTURAL SOCIETIES, and others who propose attending Town, County or State Fairs this Fall, is particularly requested to the ready Sale which may be had for the REGISTER during these anniversaries, and on other occasions throughout Autumn and Winter. TERMS—as heretofore: SINGLE COPIES, postpaid, TWENTY-FIVE CENTS; ONE DOZEN COPIES, postpaid, TWO DOLLARS; ONE HUNDRED COPIES, FIFTEEN DOLLARS, and larger quantities at a farther reduction.

PARTIAL ABSTRACT OF CONTENTS.

Among other valuable chapters, the ANNUAL REGISTER for 1862 will contain the following:—

I. FARM BUILDINGS—THIRTY ENGRAVINGS and Four Designs.
1. General Considerations.
2. Estimating the Capacity of Barns.
3. Form of Farm Buildings.
4. How to Plan a Barn.
5. Barn Basements.
6. Cost of Barns.
7. Design One—Barn for Fifty Acres or Less.
8. Design Two—Barn for Seventy-Five to a Hundred Acres.
9. Tool Rooms and Details in Stable Construction.
10. Design Three—A Large Three-Story Barn.
11. Design Four—A Small Three-Story Barn
12. Various Details.

II. VEGETABLE PHYSIOLOGY, or How Plants Grow—SIXTY-ONE ENGRAVINGS.
1. The First Formation of the Embryo.
2. The Seed and the Requirements for its Germination.
3. Process of Germinating in Plants having One and Two Seed Leaves.
4. Mode of Growth and Structure of the Plant or Tree.
5. The Root—Layering; Cuttings; Transplanting
6. The Stem and Branches.
7. The Buds and Leaves.
8. The Process of Growing.
9. Principles of Grafting and Budding.
10. Flowers—their Organs; the Crossing of Different Varieties.
11. Species and Varieties.

III. THE GRASSES—THIRTEEN ENGRAVINGS.
1. Importance of the Grass Crop.
2. Descriptions of the more Common Species.
3. Nutritive Value of Hay.
4. Management of Grass Land.
5. Suggestions in Hay-Making.

*** This article includes plain and concise descriptions of no less than TWENTY-TWO of the different grasses, with the peculiarities of which every farmer should be familiar—eleven of them accompanied by carefully drawn illustrations.

IV. LIGHTNING RODS—THIRTEEN ENGRAVINGS.
1. Essential and Non-Essential Points in their Erection.
2. Materials and Connections.
3. Length, Height and Supports—Stiffeners above the Roof.
4. Entering the Earth.
5. The Copper Rod—Various Errors—Cost of Rods.

V. BALLOON FRAMES—TWENTY-FOUR ENGRAVINGS.
1. Their Merits and Practicability.
2. Method of Raising—the Sills, Studs and Wall-Plate
3. Directions for One-Story Buildings.
4. Directions for Two or Three Story Buildings.
5. Siding, Lining and Construction of Partitions.
6. Framing Large Barns.

VI. THE APIARY—THIRTEEN ENGRAVINGS.
1. Advantages of the Movable-Comb Hive.
2. Descriptions of Different Kinds.
3. Management of Bees.

VII. THE ORCHARD AND GROUNDS—FOURTEEN ENGRAVINGS.
1. Summer Pears—Old and New Sorts.
2. The Value of Orchards.
3. Training Weeping Trees.
4. Removing Large Trees.

VIII. THE FARM—HOW FORTUNES ARE SOMETIMES SUNK.

IX. FRUITS AND FRUIT CULTURE—ONE ENGRAVING.
1. Rules for Pruning Grapes.
2. Directions for Transplanting.
3. Root-Grafting the Grape.
4. Depredators and Diseases.
5. Apples for the West.
6. Selection of Hardy Grapes.
7. Young Cherry Trees.
8. High Prices for Pears—The Glout Morceau.
9. Broadcast Cultivation—Apples in Wisconsin.
10. Hardy and Tender Trees—Culture of the Blackberry
11. Culture of Dwarf Apples.
12. Transplanting Strawberries.

X. THE DAIRY.
1. On Cheese-Making by Beginners.
2. Hiram Mills' Way of Making Butter.
3. Two Valuable Rules in Making Cheese.
4. Butter Dairies of Chenango and Delaware Counties

XI. DOMESTIC ANIMALS—TWO ENGRAVINGS.
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2. Shropshire Down Sheep.
3. Wintering Sheep.
4. Training Cattle to Jump.
5. Registering Sheep—Care of them in Spring.
6. To Prevent Horses Kicking—Teaching them to Canter
7. Making Cheap Beef—Beginning Winter Right.
8. Regularity in Feeding—Profits of Sheep Raising.
9. Training Draft Animals—Cattle Racks.
10. Swine Fed on Skim Milk—Treatment of Sows with Young Pigs.
11. Relieving Choked Cattle—Weaning Lambs.

XII. RURAL ECONOMY—THREE ENGRAVINGS.
1. Nails, Nuts, Screws and Bolts.
2. Farmer's Tools.
3. The Union Washing Machine.
4. Hay and Grain Racks.
5. Preserving Shingles.
6. Facts for Poor Farmers.
7. Time for Cutting Timber
8. Durability of Posts.
9. To Keep Plows Bright.
10. Sawing and Thrashing by Horses.
11. Provide Domestic Conveniences.
12. The Use of Rawhide.
13. How to Tan Rawhide.
14. Sap Pails.
15. The Cost of Fences.
16. Use of the Clod-Crusher.

XIII. USEFUL TABLES.
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2. Weight of Grain to the Bushel.
3. To Measure Grain and Corn in the Granary or Crib.
4. Measures of Capacity, Length and Weight.
5. Weights of a Cubic Foot and Bulk of a Ton of Different Substances.
6. Capacity of Soils for Water.
7. Velocity of Water in Tile Drains.
8. Contents of Cisterns.
9. Distances for Planting Trees, &c., and Number to the Acre.
10. Force of Windmills.
11. Quantities of Seed to the Acre.
12. Quality of Different kinds of Wood.
13. Gestation of Animals.
14. Quantity of Garden Seeds Required for a Given Area.

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